

BUSINESS WEEK

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Foundations

WHY THEY GROW SO FAST
SPECIAL REPORT PAGE 166



Whitney Stone of Stone & Webster: Power plant pioneer tackles the atom (page 110)

A MCGRAW-HILL PUBLICATION

JUNE 19, 1954



ONE PROBLEM SETTLED . . . FOR GOOD!

You can't keep production schedules *up* when plant equipment is constantly *down* for maintenance! And manufacturers, both those who use machines and those who build them, know how to settle bearing problems for good—they use Bower Spher-O-Honed Bearings!

They've found that important Bower design features—liberal oil groove, spherical roll-head and higher flange surfaces, precision-honed races—virtually eliminate bearing

failure. What's more, the exceptionally high quality and built-in durability of Bower Spher-O-Honed Bearings keep machines operating at peak capacity under the most rugged conditions.

Bower builds a complete line of tapered, straight and journal roller bearings to meet the requirements of virtually every type of product that uses bearings. Is yours one? Consult a Bower engineer soon.

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ROLLER BEARINGS



"Vision is Indispensable to Progress"

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Man-made climate has been the goal of America's air conditioning industry since the first factory cooling units were installed in 1902. Now, a half century later, new ways have been found to heat, cool, filter, dehumidify, cleanse, and circulate the air that people breathe in homes, offices, factories.

Central air conditioning in the home has a bright future. Thousands of units have already been installed. Leading builders and manufacturers

predict that within five years complete temperature control units will be included in most new homes. The room air conditioner with a reverse cycle which permits either heating or cooling of the area served, as well as the electrostatic air cleaner, are two recent developments which will create new demands for air conditioning equipment.

Today, there are plans on the drawing board for an entirely air conditioned shopping center — in-

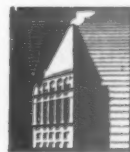
cluding sidewalks and public areas—all to be served by a central plant. Total annual sales of the industry are expected to skyrocket to \$5 billion within the next decade.

The air conditioning industry is playing a big part in America's growth and achievement. It is another demonstration of how the invigorating climate of freedom stimulates business to progress and accomplishment in which all the people share.

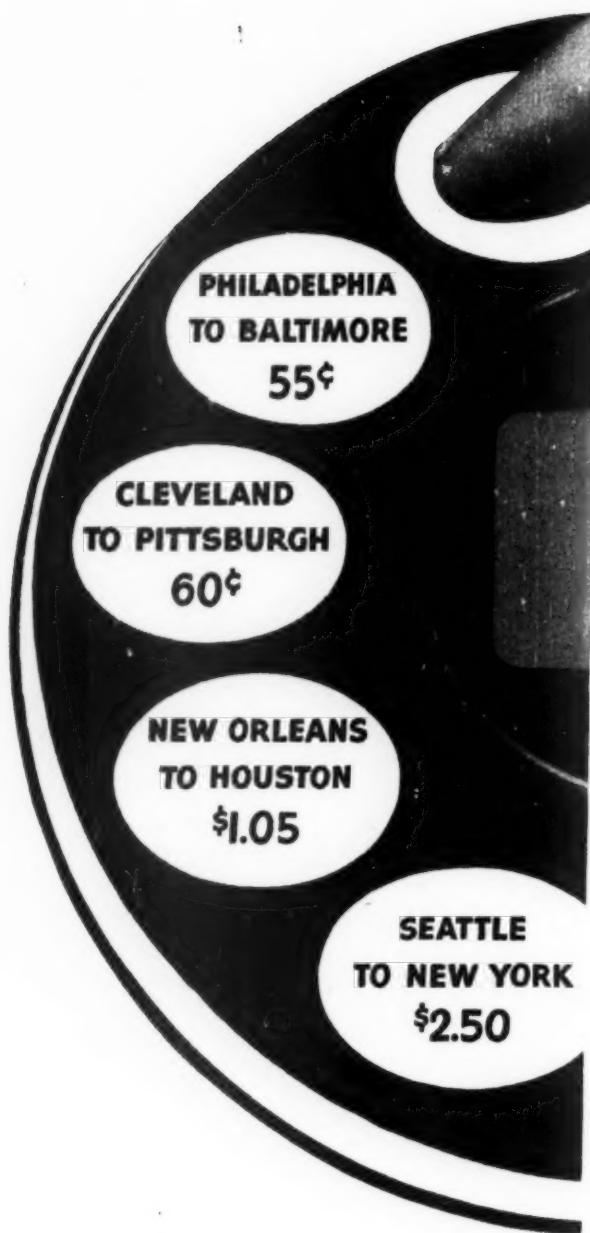
BANKERS TRUST COMPANY

16 WALL STREET, NEW YORK 15, N. Y.

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION



Sales pull



These are the *daytime* Station-to-Station rates for the first three minutes. They do not include the new, lower federal excise tax.

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These competitive days, executives everywhere are turning to more productive selling methods.

At the top of the list is Long Distance. Here are some of the reasons why:

Long Distance is fast. It will take you North, South, East and West in a matter of minutes. So you can keep in regular touch with even the most widely scattered customers and prospects.

It is personal. Like a face-to-face visit, it gives you the advantage of friendly two-way discussion, helps to prevent misunderstandings, builds good will.

And rates are low—much lower, we find, than most people think.

We have some specific suggestions for the profitable use of Long Distance in Sales, Purchasing, Administration, Traffic, Production, Engineering and Accounting. A call to your Bell Telephone Business Office will bring a representative to discuss them with you.

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In 9 principal trading regions of New York State, affiliated Marine Midland banks have 127 offices in 61 towns and cities. Their officers are local people who know their own communities as only local residents can. Let us show you how their "next-door-neighbor knowledge" can be useful to you.

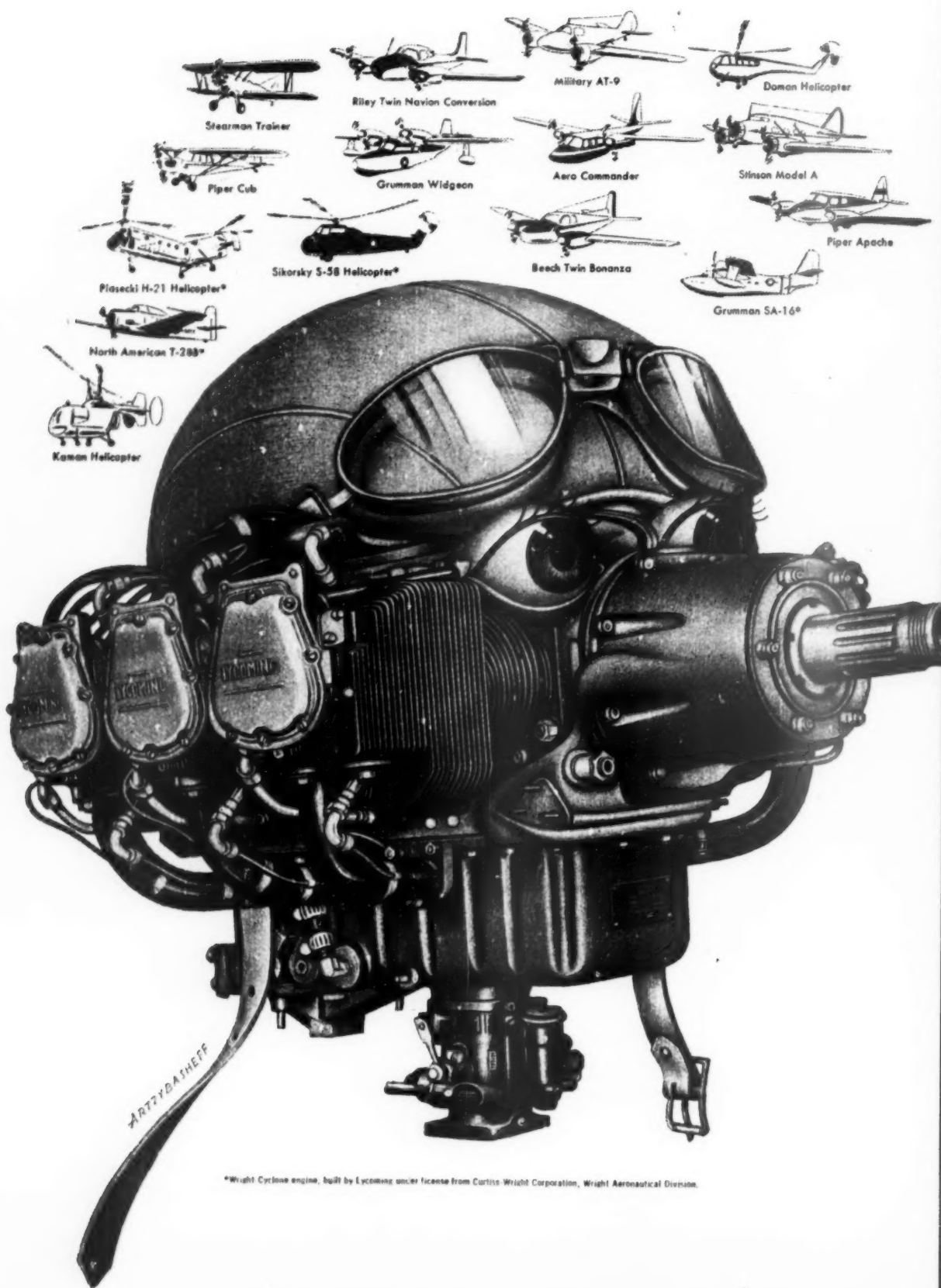
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BUSINESS WEEK • JUNE 19 • NUMBER 1294

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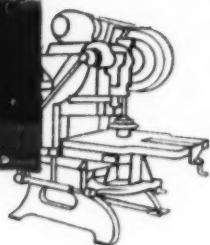
**ENGINEERS
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pansion for tonight's ex-
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team. In fact, engine design
team for stress analysis and
development. project engineers
write. Write: Vito-Resnick, Indus-
trial Relations, Stratford, Conn.



Sally's pretty well automated

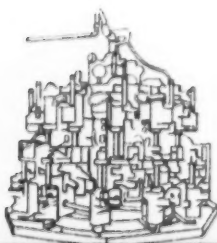
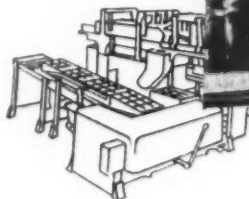
The ball bearings on her skates can be put together by Emhart's V & O Press Company Division skills, which have actually included development of a machine that takes bearing parts from hoppers—and balls from another hopper—then delivers finished ball bearings at 50 per minute. The coupon at right lists V & O's precision press equipment literature. These equipped presses have been automated for over 60 years.



Automation that you can apply

She's benefiting from less costly packaging

To package a gas or electric range now takes only one man and another new Emhart machine, developed and produced by our Standard-Knapp Division. Standard-Knapp machinery automatically takes containers into or out of cases. It can automatically label, palletize, rinse and perform other operations to lower the cost of goods that are unit-packaged. Millions of cases every day are handled by Standard-Knapp equipment listed in the coupon at right.



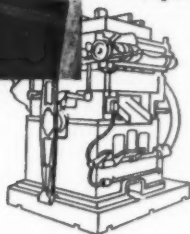
Baby benefits from complete automation

This nursing bottle—and other glass containers produced by equipment offered by Emhart's Hartford-Empire Company Division—starts with automatic feeding of raw glass batch into automatically controlled furnaces and ends with finished, automatically cooled glassware.

Feeding spoons in one operation



Emhart's Henry & Wright Division makes progressive dieing machines that do the work, complete-per-stroke, of five formerly-used presses—performing as many as 14 different operations in one—producing spoons at 120 per minute, for instance. They'll form, stamp, and even assemble, depending on how they're tooled. Many diverse examples of progressive dieing are included in the literature shown in the coupon at right.



RIGHT NOW!

Automation, as expressed in Emhart equipment, can be everything from a completely automatic, highly complex process to simply moving something from one place to another. Automation from Emhart divisions can cost \$1 million or a few hundreds.

If yours is among the majority of companies who are at least interested in automation, you can join the leaders who have actually done something about it by doing business now with one or more Emhart divisions. The multiplicity of automation problems profitably solved for others is only slightly indicated by the examples shown here. For further information on a wider variety, please check and mail the coupon.

Emhart Mfg. Co.

Only the best is good enough

AUTOMATION LITERATURE

Check any product information you want and mail this coupon to any Emhart unit listed below . . .

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400 Union Turnpike
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☐ STANDARD-KNAPP



Division of
Emhart Mfg. Co.
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| <input type="checkbox"/> Feeders | <input type="checkbox"/> Lehr Loaders |
| <input type="checkbox"/> Lehrs | <input type="checkbox"/> Unit Melters |

PACKAGING MACHINES

- | | |
|---|---|
| <input type="checkbox"/> Unloaders | <input type="checkbox"/> Packers |
| <input type="checkbox"/> Rinsers | <input type="checkbox"/> Labelers |
| <input type="checkbox"/> Cartoners | <input type="checkbox"/> Case Cleaners |
| <input type="checkbox"/> Gluers & Sealers | <input type="checkbox"/> Palletizers & De-palletizers |

METAL WORKING

- ☐ Henry & Wright Dieing Machines
- ☐ Henry & Wright "Press Load Calculations"
- ☐ Henry & Wright Case Histories
- ☐ V & O Inclined Presses
- ☐ V & O Notching Presses
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can
help
you
attain
this
frame
of mind
about



COMPETITION!

General business levels needn't apply to you—if you are in the position of competitive leadership in your field. Modernized, mechanized production techniques will mean lower costs and a higher quality product. Your salesmen will turn these competitive advantages into sales.

Our business is to help you achieve competitive leadership by scientific materials handling and production methods. We are equipped by long and practical experience to plan efficient production flow for your plant, then translate it swiftly and surely into operating reality.

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READERS REPORT

Deep in Debt

Dear Sir:

(Re) [BW—May 15 '54, p121] . . . professional economists to the contrary, it is the finest thing that people can do—to save money and pay off their installment debts. The trouble with our economy today is that most people are hocked right up to their eyebrows with fixed obligations.

People need a cushion to face the twin obligations of taxes and inflation. The stock market is at a 24-year high, yet everybody knows what happened in 1929. The instinct of the average person says "caution—put on the brakes."

The starry-eyed economists (who can't rub two dimes together), and who would continue to spend us into "prosperity" would take us down the high road to the poorhouse and state socialism instead.

Since when has thrift become an evil?

MAURY MARION TRAVIS

CASPER, WYO.

Dear Sir:

With respect to more debt via installment retail buying . . . perhaps consumers are wiser in limiting their future commitments than business-minded economists would have them be. Maybe Walter Williams, Under Secretary of Commerce, is giving the wrong advice to salesmen that they should help the buying public get back into a habit of "expanding consumer debt."

Any purchase of this year's output not paid for by this year's income means the consumer will have just that much less money to buy next year's output, and in addition will have to pay interest charges, which further reduces his buying power.

Question: When consumer debt through installment buying reaches the point where too much of next year's income is used to pay for this year's output, what are people going to use to pay for next year's output?

Is the answer debt cancellation? Or shutdown for "inventory adjustment" and recession?

Isn't this one of the key questions about buying power in relation to the maintenance of high levels of output and stable sales?

TED F. SILVEY

WASHINGTON, D. C.

• Of course, it's not a good thing if credit runs too high. On the other hand, many purchases of large ticket items would never be made without that financing lift. Also, studies show

Save steps, hours- *and maybe your business**



*Fire can't burn any of the records in this office

... ALL ARE PROTECTED BY UNDERWRITERS' LABELS

EACH DRAWER A SAFE! In this modern, good looking Shaw-Walker fireproof equipment, fire walls stand between your irreplaceable records and possible destruction. Fire-File, with corner cut away shows: Thick, steel-walled steel-reinforced fire insulation on all six sides of each drawer. Vault-like interlocking drawer front.

YOU are looking here at no ordinary office scene. The difference is a new means of record keeping, now revolutionizing office methods—fire protection for all records *right where they are being used*.

This modern "time-engineered" Shaw-Walker equipment not only gives right-on-the-job fire protection during working hours when most fires (55%) occur, it pays for itself by saving time and space. All of the savings from this efficiency go directly into profits.

Shaw-Walker makes 46 different types of this time-saving, fireproof equipment—Desks, Fire-Files, Posting Trays. In them your records will be completely safe, always ready for instant use, even after a fire. You can't afford to gamble—57% of the businesses who lose records in fires never fully recover.

Shaw-Walker has been helping American business save time and step up office output since 1899. There are 4,000 Shaw-Walker products—chairs, desks, filing cabinets, Fire-Files, loose-leaf and payroll equipment—every-

thing for the office except machines—each "time-engineered" for the needs of every job and worker.

So if you are modernizing or setting up a new office, make sure you use Shaw-Walker throughout. It will help you stretch *time*—the most critical factor in business today. It may save your business!

THE BOOKLET, "TIME AND OFFICE WORK" is packed with ideas for stretching office time. A wealth of information on "time-engineered" office systems and equipment. 36 pages! Many color illustrations! Write today, on business letterhead to: Shaw-Walker, Muskegon 11, Michigan.



SHAW-WALKER

Largest Exclusive Makers of Office Furniture and Filing Equipment in the World
Executive Offices at Muskegon, Michigan—Branches and Exclusive Dealers in All Principal Cities

Pumping makes sense



Any plant improvement that results in a reduction of fire and accident hazards certainly makes sense. If such improvement saves money* and helps housekeeping, it makes even better sense. This is exactly what happens when Tokheim Transfer pumps are put into service.

Pouring, drawing or siphoning industrial liquids are outmoded, dangerous practices. Correct them with Tokheim pumps. There is none better, none more versatile. Easily installed in drums, pipe lines or underground tanks. Long-lived, inexpensive. Many models. See your dealer, your Tokheim representative or write factory for catalog today!

* The use of Tokheim pumps often earns a lower insurance rate.

pumps many liquids

Acetates • Alcohols • Aromatic Solvents • Chlorinated Solvents • Glycols • Ketones and Ethers • Petroleum Solvents • Plasticizers • Petroleum Products • Water and Others.

Pump is furnished standard with molded, synthetic diaphragm. Leather diaphragm optional. Ask for approved list of liquids showing recommended diaphragm.

Manufactured by Tokheim — America's foremost builder of service station pumps

General Products Division

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Gasoline Pumps and Accessories • Air and Liquid Dispensers • Specially Engineered Products



that a good part of installment buying is done by young people with rising incomes, so that their purchasing power in 1955 does not necessarily shrink to compensate for obligations incurred in 1954.

Rebirth of a Bull

Dear Sir:

A sidelight on your excellent article . . . Bulliest of the Bulls [BW—May 29 '54, p136]—some of the current growth stocks (at today's prices) may be found in unlikely places, for example: Montgomery Ward. . . .

However, consider that the common stockholder's equity per share has been built (on ultra conservative valuations) from \$28.46 in 1936, and \$46.95 ten years ago to \$92.37 as of 1/31/54. The stock currently sells at about \$63.00. Out of working capital totaling \$588-million, there is cash and government bonds of \$293-million. This lopsided liquidity will, eventually, be used . . . for expansion into suburban shopping centers and refurbishing present locations, at vast gain to the stockholders. Meanwhile, the earning rate is about 10%—the dividend rate about 5 1/2% of the market price. The only question marks are the timing of growth and the competence of the next management. From 25 years with the company, before retiring, I'm convinced they have . . . a solid underpinning of sound . . . even imaginative, executives who are awaiting the rebirth impatiently.

P. S. BARROWS

DEL MAR, CALIF.

The End . . . or the Beginning?

Dear Sir:

Your analysis and comment on Russia's Economic Buildup [BW—May 1 '54, p126] . . . concludes ominously: ". . . there is no doubt that Russia has a war industry that packs a mighty wallop. It's backed up with capital goods industries, which are still expanding."

In the nature of business, analysis and comment are based on Russia's tangible buildup, where we have no control . . . ignoring the intangible aspect, where America "packs a mighty wallop" . . . which is still expanding—potentially.

Barbara Wootton concludes her article in *Confluence* (March, '54), published by Harvard University, with the following thought-provoking observation: "Now that the more advanced democracies have traveled almost as far along what have come to be the accepted lines, this must be either the end of the journey or the turn of a corner into entirely new and exciting country."

At the risk of oversimplification,



Johns-Manville Announces **A NEW NONCOMBUSTIBLE** **ASBESTOS MOVABLE WALL**

Economical in cost . . .

Pleasing colors — Scratch and stain resistant

New Johns-Manville Class A Movable Walls offer you advantages never before combined in an asbestos movable wall. They are modestly priced. They are noncombustible. They have a textured, stippled finish in restful colors. They reduce maintenance and re-location costs to a new low.

Class A Movable Walls consist of a noncombustible all-mineral core with sturdy asbestos-cement surfaces. The finish is a tough, hard film many times thicker than on the usual movable partition. It is mar and scratch resistant . . . rejects stain and soil . . . can be easily washed and even scrubbed, if necessary. If damaged, it can be touched up inexpensively to look like new . . . and, unlike other types of factory-

finished partitions, can be repainted with ordinary paint.

Both flush and glazed partitions are available in ceiling high or free standing heights. Walls are erected complete with doors, door hardware, glass and trim. For best results, they are erected by Johns-Manville's own Construction Department. In this way every job, large or small, receives the benefit of Johns-Manville's undivided responsibility.

An estimate will convince you that the cost of J-M Movable Walls compares favorably with other types of wall construction. For details, write Johns-Manville, Dept. BW, Box 158, New York 16, N. Y. In Canada write 199 Bay Street, Toronto 1, Ontario.



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- A** Noncombustible asbestos-cement surfaces.
- B** Generous reinforcing for added strength.
- C** Noncombustible all-mineral insulating core.



Johns-Manville

Your Industrial Future... in a land of beginnings

Northeastern North Carolina



Here, on Roanoke Island, the *first* English Settlement was set up in 1585.

Here, was born Virginia Dare—the *first* white child in the New World.

Here, at Kitty Hawk, the Wright Brothers made their *first* successful power flights.

Here, in a Land of Beginnings—at "THE TOP OF THE SOUTH"—can be *your* industrial future.

Here, is a location for *your* industry—large or small—and a plentiful supply of low-cost, dependable Electricity.

IN NORTHEASTERN NORTH CAROLINA, at the "TOP OF THE SOUTH", the people are really friendly to new and expanded industry for, with traditions going back to Colonial days, they know that more invested capital means greater opportunities for workers who realize what free American enterprise can do.

Our Area Development Department can help you find the location you want for your industry. We have the information on sites, natural advantages and technical details. A letter, postal card or telephone call will start this confidential service to you.

AREA DEVELOPMENT DEPARTMENT
VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND 9, VIRGINIA

Americanism is based on two fundamental postulates of Jeffersonian democracy: (1) universal fingerhold on knowledge; (2) universal toehold on Mother Earth. Ironically, both were rejected by Jefferson's contemporaries: the former by the legislature of Virginia, the latter by James Madison—as the impracticable dream of an impractical visionary.

After barely three generations, the public school—the culmination of 10,000 years of cultural evolution—was in process of becoming a universal reality. . . .

In terms of long-range cultural evolution, the synthesis of the trends of all basic factors of civilization . . . challenges . . . America [and] the world . . . to implement Jefferson's second fundamental postulate of democracy on an idealized pilot level—pointing up "the turn of a corner into entirely new and exciting country."

PHILIP WEISS

ST. LOUIS, MO.

The Discount Problem

Dear Sir:

. . . with reference to an article in your April 3 issue, p. 150, titled *They'll Sell You Almost Anything You Ask For—at a Discount* . . . the final paragraph on p. 157 . . . reads as follows: "This may be only the beginning. One thing seems certain: The discount house is helping to lower margins on all appliances."

. . . This paragraph implies that the discount house is helping to reduce prices for the consumer. What it fails to reveal is that wholesale prices have been maintained by manufacturers and the retailer is taking all the beating. The conscientious, legitimate appliance retailer cannot compete because it costs him money to maintain a service department, which includes trucking equipment, shop equipment, parts and salaries. Another very important item is the cost of advertising . . . the increased cost of [which] . . . has become a burden to the legitimate dealer, whose ads are used as tear sheets by the discounters.

The proper place for competition stylewise, pricewise and servicewise belongs at the manufacturer's level. Let the individual manufacturer make his product better at an established competitive price. This will enable the retailer to sell his product as low as possible and yet will give him a margin that will allow him to maintain a service department to protect the consumer; to advertise at the local level, thereby creating a demand in the retailer's area for the manufacturer's product; and also to include in that margin enough to pay good salesmen. How about the beating a retailer takes when new models come out? Who will take the trade-ins, so the consumer will be willing to



**World's largest high-alloy weld is 67 square inches...
IT'S BEING DONE AT CLEVELAND PNEUMATIC**

In a blinding shower of sparks two solid steel railroad car axles can be welded into one length in only 108 seconds...or...

Two heavy-wall alloy steel tubes 20" in diameter, 1" wall, can be joined with a weld that is actually as strong as the tube walls.

In the Cleveland Pneumatic plant, the world's largest and most powerful general-purpose flash-butt electric-resistance welding machine is now at work joining aircraft components. This machine can butt weld high-alloy steel pieces having a total cross-sectional area of as much as 67 square inches. With low-carbon

material, this area can be as large as 100 square inches.

A limited amount of this machine's extra time is available now on a contract basis. It can be useful to manufacturers who have the problem of getting highest-quality large-area welds on high-alloy steels at low unit cost.

Write for Booklet B-64, which describes this machine and its capacities, and also tells you how our Contract Welding Department can work for you.



Cleveland Pneumatic
Tool Company CLEVELAND 5, OHIO

Department B-64

BALL-SCREW MECHANISMS • AIR-OIL IMPACT ABSORBERS • World's Largest Manufacturer of Aircraft Landing Gears

What is there about Wausau, Wisconsin, that makes it the ideal home for one of the world's most important insurance companies?

Employers Mutuals of Wausau invited an Atlanta air line president to visit its hometown and find out.



"... an unusual distinction for a clergyman."
Rev. Ray Kiely (left) and Mr. Woolman.

I'd heard about the Reverend Ray Kiely, pastor of one of Wausau's 33 churches. He had been named Man of the Year for Wisconsin by the Junior Chamber of Commerce. This is an unusual distinction for a clergyman, and I wanted to meet him.

He told me that Wausau businessmen often come to him to talk about applying the Golden Rule to their companies' affairs. That is a good commentary on the type of men they are in Wausau.

This impression was strengthened when I met Arnie Plier, head of Wausau's D. J. Murray Manufacturing Company. He greeted us cordially—dressed for comfort in a flannel shirt. Our chat went far beyond air travel and the big paper-making machines his company produces. Mr. Plier was as proud of the African violets on his window ledge as I am of the orchids I grow—and we enjoyed swapping information about our hobbies. You do things like that in Wausau.

I found the same refreshing attitude in Employers Mutuals' people. Their policyholders buy something more than insurance. They buy a way of doing business that is good. It springs from a deep belief in doing things right and well. And that, I think, springs from the good life of Wausau itself.

**Employers Mutuals of Wausau are
"good people to do business with."**

There's a little bit of Wausau on the sidewalks of New York, and in all 89 cities where this company has offices. We have a reputation for fairness that bends over backwards to give our customers the protection they expect; and for unexcelled claim service. We are one

of the world's largest writers of workmen's compensation insurance and handle all lines of casualty and fire insurance as well.

We believe that insurance works at its best when it protects against the large losses that are unpredictable—rather than the small losses that are to be expected. For example, we are one of the first companies to offer group hospitalization insurance with new high-

maximum benefits to take care of major expenses. This is made possible by a "deductible" provision that keeps premiums within reason (similar to the deductible-type automobile insurance you buy).

May we show you how we can tailor such a plan for you? You'll find us good people to talk business with. Phone our local office, or write Wausau, Wisconsin.

Wausau Story

By C. E. WOOLMAN, President, Delta-C&S Air Lines, Atlanta



"... a deep belief in doing things right." Mr. Woolman (right) visits Wausau's A. W. Plier.

Employers Mutuals of Wausau



let his present appliance go for a later model that requires repairs and another sale?

Should we all eliminate our advertising? Should we eliminate our service departments, which have been maintained for the protection of the ultimate consumer? Shall we stop selling and just take orders? The good salesman . . . is being demoralized because after a lengthy sales presentation, too often he is asked for a model number. Who will do the creative selling? . . .

The present margin in most appliances is satisfactory and necessary for the retailer to do a good job. Because of World War II and the Korean War, there was such a demand not only for appliances, but for houses, cars, etc., that the discounter has been able to move merchandise by just taking orders. The future will demand a lot of creative selling to keep up the volume in the factory. During the past few years, it hasn't paid the retailer to create sales because he lost the actual delivery to the discounter. Will we need another NRA or will the manufacturers take care of it themselves?

IRVING O. HASSEL

S. H. APPLIANCE CO.
LOS ANGELES, CALIF.

A Slide Rule for Surrealists

Dear Sir:

Apropos of Personal Business [BW—May 29 '54, p147], here is a formula . . . by which a person can evaluate a contemporary oil painting that he might desire to own. It applies only to recent work by contemporary artists who are capable craftsmen.

Good professional work sells for about 50¢ a square inch in USA. In Britain the figure is slightly above 75¢ a square inch. Paintings that are not quite so well done will sell for slightly less, but no contemporary artist will be insulted if he is offered \$160 for a 16x20-inch canvas. . . .

Don't offer 50¢ per square inch. . . . Merely offer the full amount.

Here is how I discovered the "formula." I visited an eastern art gallery where recent work was on sale by a well-known group of moderately conservative artists. The catalog gave the size of the canvases and the asking price. With the . . . slide rule it was . . . simple to divide the price by the area. The figures averaged 50¢.

In London . . . at the Royal Academy, I found the prices were a little higher than ours. . . .

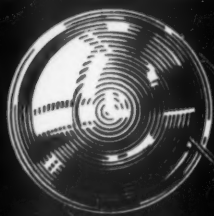
L. V. BURTON

PACKAGING INSTITUTE
NEW YORK, N. Y.

• An on-the-spot survey reveals: Most artists interviewed said: "A very unpalatable suggestion indeed."

When you're
looking for a
material that resists

IMPACT



micarta is basic!

MICARTA® simply soaks up impact. Vibration, too. And it muffles noise. Its inherent toughness gives it unusual compressive strength . . . high resistance to moisture and corrosion . . . and to extremes in temperature. But tough as it is, MICARTA can be easily and accurately fabricated. How can this amazing, feather-weight material serve and save for you? Use the coupon for the complete story.

1-06577

YOU CAN BE SURE...IF IT'S Westinghouse



MICARTA's Unique Properties
are serving every industry in applications ranging from tiny punched parts to massive steel mill bearings.



Westinghouse Electric Corporation, Trafford, Pa.
MICARTA Division, Attention: L. A. Pedley

Sir: (Please check one)

- ☐ Please have your representative call
☐ Please send me complete facts on MICARTA

Name

Company

Address

City Zone State

HOW HERCULES HELPS...

Hercules' business today helps almost everyone's business. It embraces the production of synthetic resins, cellulose products, chemical cotton, terpene chemicals, rosin and rosin derivatives, chlorinated products, and many other chemical processing materials—as well as explosives. Through close cooperative research with its customers, Hercules has helped improve the processing or performance of many products. We welcome the opportunity to work with you.

... TO AVOID PAINT FAILURE



▲ Hercules® steam-distilled wood turpentine adds to the value of your paint job—helps paint go on smoother, adhere better, cover more surface. Professional painters and householders prefer this pure spirit of turpentine because it's the best paint insurance their money can buy. Accept no substitutes!

HERCULES

... TO "DRESS UP" PACKAGES



▲ For better appearance and longer shelf-life, product packaging uses inks and overprint lacquers made with Pentalyn® resin. And in making paper and paperboard, manufacturers get top-quality performance and maximum production economies with Paracol® wax emulsion, Pexol® fortified size, and Kymene® wet-strength resin.

... TO CUT MAINTENANCE COSTS



▲ Wherever industrial paints have to take a beating—from salt water, acids, alkalis, abrasion, sun—those made with Parlon® (chlorinated rubber) *stay on*, give better service at lower long-term costs. Parlon paints dry almost as fast as lacquer, and adhere to almost any surface.

HERCULES POWDER COMPANY

968 Market St., Wilmington 99, Del. Sales Offices in Principal Cities



G-4-G

BUSINESS OUTLOOK

BUSINESS WEEK

JUNE 19, 1954



Consumers' appetites for goods, while not insatiable in all directions, are still very healthy indeed.

People's spending is keeping retailers' cash registers jingling (even if not quite up to the record levels of last year).

And their continued interest in new homes plays a big part in this week's upward revision in the government's construction estimates.

—•—
Construction outlays seem headed for a record year.

Last November, a joint estimate by the Bureau of Labor Statistics and the Dept. of Commerce indicated a \$34-billion volume for 1954. This would have meant a 2% decline from 1953.

Now they believe expenditures may hit \$36-billion. That would put the total 2% ahead of last year and set a new all-time record.

More-than-anticipated vigor in most civilian lines has added this \$2-billion to the earlier construction estimates.

Here you see the full impact of housing. Up \$1-billion, it accounts for the lion's share of the gain.

Jobs of a great many workers, profits of a good many businesses (both in construction and in the supply trades) hinge on just how well these residential building estimates pan out.

BLS-Commerce see 1,080,000 housing starts this year.

If realized, this would make 1954 the best year since 1950. (It would top 1951 and 1952 by only a few thousand, but that would be enough.)

Reaching 1,080,000, however, will take some doing. We are several thousand behind 1953 now; it will take 2,000 more starts each month, on the average, to close this gap and bring us to the estimate.

April is the only month so far in 1954 to show more privately financed housing starts than a year ago. (May fell behind again, although only by a hairsbreadth.)

From now on, though, if all goes well, gains will be easier to post.

Housing was in a moderate decline in the last seven months of 1953. As a whole, the period compared rather poorly with the year before.

—•—
Retail customers, to date, have come pretty close to matching their last year's purchases, dollar for dollar. (And remember that sales until late last year set new monthly records except for the Korean spree.)

Through May, the actual dollar volume was a scant \$1.5-billion (or 2½%) behind the same months a year ago (BW—May29'54,p17).

Without the drop in auto sales—down slightly over \$1-billion in the five months—the year-to-year change would hardly have been visible.

If you have been wondering what hit textiles, you can get a pretty fair notion from the five-month sales at apparel stores. They are off about 7% from last year's totals.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

JUNE 19, 1954

Otherwise, retail counters have been about as busy this year as last.

Furniture, groceries, and restaurant meals have all been selling very close to last year's levels.

Your corner gas station and drugstore, if they're up to average, have even bettered their sales. (Service stations have made the most impressive gain, sales up 8% over last year.)

Retail sales may pick up some added strength from the recent gains in jobs and the decline in layoffs.

Since the week of May 8, when the Census Bureau last surveyed the labor force, initial claims for unemployment insurance have been declining, week by week. Right now, they are 40,000 a week under earlier levels.

At the same time, the number drawing jobless compensation checks has come down by about 200,000 (although it's still double a year ago).

Reversing the downtrend in employment naturally will affect incomes.

Wage-and-salary payments, running at an annual rate of a little over \$194-billion in April, were down \$8-billion from last year's peak.

—•—

Business improvement, as far as it can be measured, still is spotty.

Yet the over-all figure is up. The Federal Reserve Board's preliminary production index for May rose to 125 (seasonally adjusted).

April had signaled the turn with an index number of 123, unchanged from March. But May's is the first rise since late last summer.

Give the consumer at least an assist on the production indexes.

As noted so often, he cut his spending much less than production fell. Obviously, as soon as excess inventory was worked off, this had to mean that production would move up just to meet continuing demand.

And the Federal Reserve's index for output of all consumer durable goods scored a rise of 2 points last month. Narrowing it to just the "major" items in this index, the rise was 4 points.

—•—

Steel production continues to rise. This basic indicator would seem to be registering additional improvement in general activity so far in June—but its rise may have to be viewed cautiously these days.

Not only was there some anticipatory buying on the chance of a strike. There also is some hurry-up demand now to beat the price increase that is expected to follow agreement on a new union contract.

—•—

Estimated corporate taxes give you an insight into the federal budget—the deficit staying with us in spite of the economies.

The corporate tax bill in the first quarter was at an annual rate of \$18½-billion (reflecting reduced rates and lower pretax income). That's down about \$6-billion from the initial quarter last year.


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whatever the job . . .

SELECTING
PERMACEL TAPES

PERMACEL TAPES ARE AVAILABLE IN A VARIETY OF THICKNESSES AND WIDTHS. FOR MORE INFORMATION, CONTACT PERMACEL TAPES COMPANY, NEW YORK, N.Y.



How all industry benefits
from progressive railroading

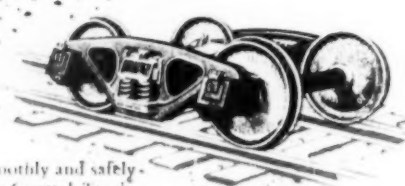
Today they're giving freight a safer, smoother ride . . .

In a persistent effort to make good service even better, railroads have turned the spotlight on the causes and cures of lading damage. Lest someone get the impression that freight shipments are risky, here are some facts about an unusual record of achievement.

First, the number of claims has gone steadily down: total in 1952 was 39% less than five years ago. In terms of dollars, current loss is *less than one-fiftieth of one cent for each mile a ton is carried*.

The irreducible minimum hasn't been reached yet, of course. Railroads are working with shippers on better loading methods; investing in better cars that ride smoothly at high speeds. For example, the modern Ride-Control[®] Truck, developed by American Steel Foundries, rides up to *fifty times more smoothly* than the ordinary trucks of ten years ago!

But, over-all railroad progress is not traceable to any isolated development or to any single railroad. Continuous improvements, jointly made by railroads and suppliers alike, are making today's freight service better . . . and a bigger value than ever before.




Freight is hauled smoothly and safely on the modern Ride-Control Truck. This truck was the first to permit passenger train speeds for freight trains . . . at freight train costs.

American Steel Foundries

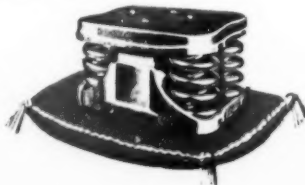
World's largest producers of railroad running gear

Executive Offices: Wrigley Building, Chicago 11

Another plus of modern railroading

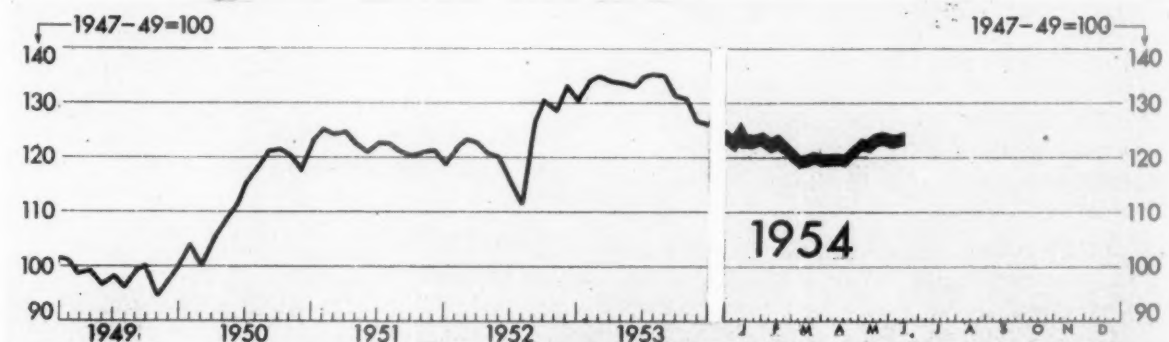


Industry benefits from the efficiency of today's modern car pool. Average ton-miles hauled per train hour shot up 74% from the 1936-1940 period!



Mechanical principles of the Ride-Control Truck are now built into the "Ride-Control Package" — which economically makes older cars suitable for high speeds, unrestricted use.

FIGURES OF THE WEEK



Business Week Index (above)

\$ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
*124.7	†124.5	124.4	134.3	91.6

PRODUCTION

Steel ingot production (thousands of tons)	1,752	†1,746	1,712	2,183	1,281
Production of automobiles and trucks	140,404	†119,688	153,796	167,095	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$49,405	\$49,949	\$58,732	\$48,911	\$17,083
Electric power output (millions of kilowatt-hours)	8,658	8,246	8,380	8,245	4,238
Crude oil and condensate production (daily av., thousands of bbls.)	6,495	6,466	6,428	6,477	4,751
Bituminous coal production (daily average, thousands of tons)	1,194	†1,206	1,129	1,502	1,745
Paperboard production (tons)	256,496	223,307	252,436	254,689	167,269

TRADE

Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars)	67	68	67	74	82
Carloadings: raw materials (daily av., thousands of cars)	47	47	41	55	53
Department store sales (change from same week of preceding year)	-18%	+8%	-4%	+6%	+30%
Business failures (Dun and Bradstreet, number)	206	218	248	167	22

PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	432.6	437.0	438.4	412.7	311.9
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100)	87.6	87.9	86.8	86.8	††73.2
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100)	99.0	101.2	102.3	87.2	††75.4
Print cloth (spot and nearby, yd.)	19.2¢	19.2¢	19.2¢	21.1¢	17.5¢
Finished steel, index (U. S. BLS, 1947-49 = 100)	140.9	140.9	140.8	136.3	††76.4
Scrap steel composite (Iron Age, ton)	\$28.08	\$28.25	\$28.08	\$40.50	\$20.27
Copper (electrolytic, Connecticut Valley, E&MJ, lb.)	30.000¢	30.000¢	30.000¢	29.980¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bn.)	\$2.29	\$2.26	\$2.34	\$2.21	\$1.97
Cotton, daily price (middling, ten designated markets, lb.)	34.24¢	34.33¢	34.47¢	33.16¢	30.56¢
Wool tops (Boston, lb.)	\$2.15	\$2.12	\$2.12	\$2.12	\$1.51

FINANCE

90 stocks, price index (Standard & Poor's)	227.8	228.3	228.3	188.4	135.7
Medium grade corporate bond yield (Baa issues, Moody's)	3.49%	3.50%	3.47%	3.88%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	14-14½%	14-14½%	14-14½%	21%	4-1½%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks	54,778	53,930	54,153	54,900	††45,820
Total loans and investments, reporting member banks	80,151	80,519	79,670	76,466	††72,036
Commercial and agricultural loans, reporting member banks	21,571	21,599	22,045	22,732	††9,299
U. S. gov't guaranteed obligations held, reporting member banks	33,217	33,196	31,994	29,383	††49,879
Total federal reserve credit outstanding	25,740	25,582	25,484	25,741	23,883

MONTHLY FIGURES OF THE WEEK

MONTHLY FIGURES OF THE WEEK		Latest Month	Preceding Month	Year Ago	1946 Average
Average weekly earnings in manufacturing	May	\$71.13	\$70.20	\$71.63	\$43.82
Housing starts (in thousands)	May	106.0	110.0	108.3	55.9
Bank debits (in millions)	May	\$149,722	\$154,565	\$141,981	†\$85,577
Exports (in millions)	April	\$1,421	\$1,123	\$1,394	\$812
Imports (in millions)	April	\$957	\$858	\$1,013	\$412

* Preliminary, week ended June 12, 1954.

† Revised.
†† Estimate.

* Date for "Latest Week" on each series on request.

in BUSINESS this WEEK...

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AD MEN SOFT-PEDAL HEALTH. Smokers are again hearing that their habit can be a pleasant one.p. 58

CANDY TROUBLES. Industry looks for ways to buck rising cocoa bean prices.p. 60

NOT HOT ENOUGH FOR THEM. Air conditioners are trying to top last year's sales.p. 62

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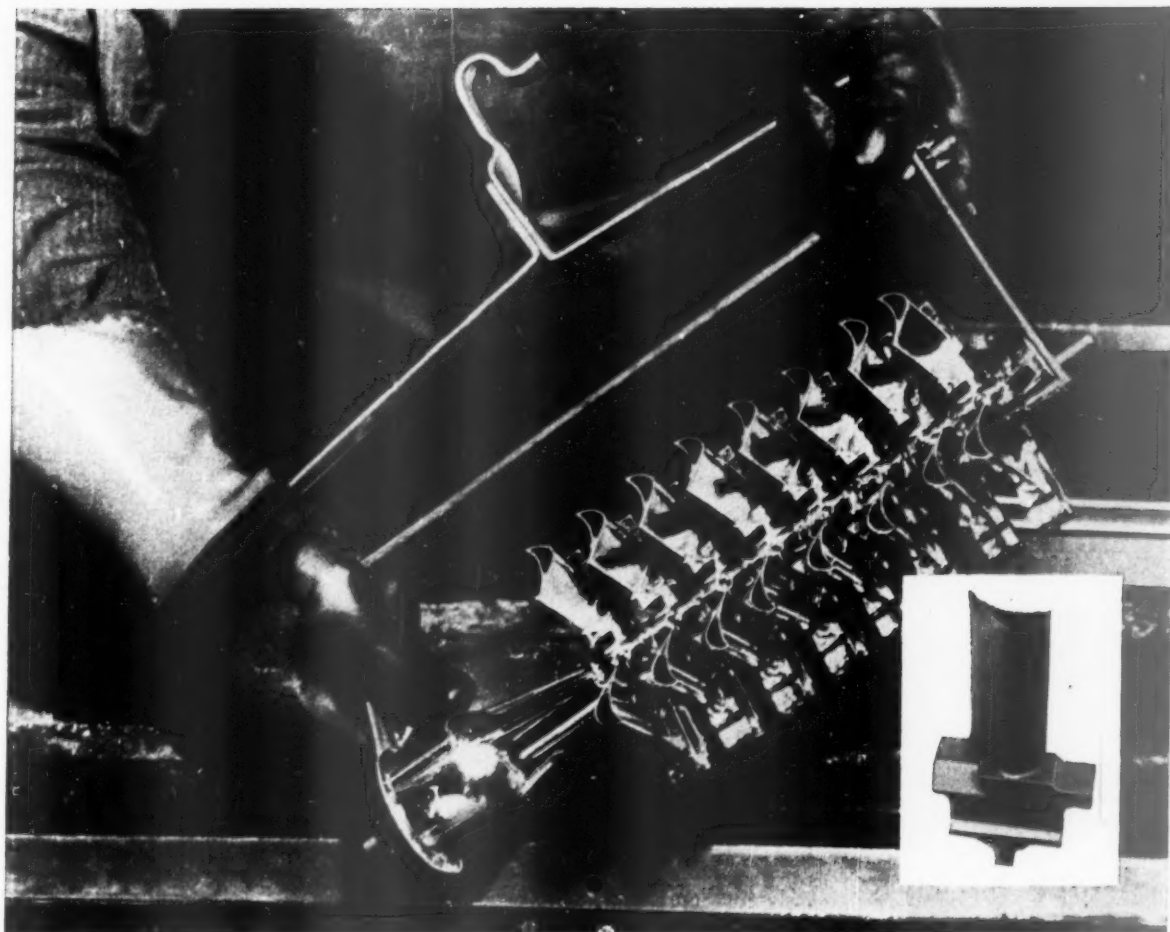
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GM OPEN HOUSE: CARS AND COWBOYS. Arlington, Texas, welcomes its fancy, new neighbor from Detroit.p. 72



Frozen mercury patterns simplify precision casting

... SPEED PRODUCTION AND CUT COSTS

In the precision casting of complex parts, such as hollow turbine blades (see insert, Thompson Products, Inc., Cleveland, Ohio, makes use of what is called an "Intricast" method. This employs mercury frozen solid and permits casting intricate parts in quick time . . . giving them a high degree of accuracy and a fine finish.

Liquid mercury is poured into a steel die, frozen solid, and forms the pattern for the part to be made. The patterns are then dipped into ceramic slurries held at sub-zero temperatures as low as -80 F., and these produce the actual molds. Use of refrigeration steps up production and materially lowers manufacturing costs.

To provide these extreme low temperatures—typical of those required in many industries today—refrigeration

equipment operated with Du Pont "Freon-22"* (monochlorodifluoromethane) is used.

This is just one of many "Freon" refrigerants that are ideal for a wide variety of industrial applications . . . regardless of the temperature and humidity conditions that may be needed. They are entirely safe . . . nonflammable, nonexplosive, virtually nontoxic. Produced to meet exacting specifications, they effectively contribute to the extended life and economical operation of all types of refrigeration and air conditioning systems . . . large and small.

Possibly you might well apply new, modern air conditioning and/or refrigeration systems to your own production operations. Talk it over with your engineers—now.

Write for this interesting booklet: "How Air Conditioning and Refrigeration Benefit Industry." Address: E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.





FREON

REG. U.S. PAT. OFF.
SAFE REFRIGERANTS

* "Freon" is Du Pont's registered trade-mark for its fluorinated hydrocarbon refrigerants.



REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY



Ben Duffy, President of Batten, Barton, Durstine & Osborn, Inc., tells why:

"You don't have to wait for Groucho!"

"Snap on your TV set Thursday night—there's Groucho," Ben Duffy points out, "and he never fails to be there."

"You—and BBDO—can thank Air Express for that. It's Air Express that carries Groucho's films regularly."

"TV films are always due at a certain hour, often the whole way across the country. The same with printing plates. They may have to reach 100 different cities to make a specific edition of many publications."

"Air Express gets these essential materials there—every

day in the year. It's the most reliable service we know."

"Frequently, we send duplicate shipments in case one should be marred or lost in handling—but this precaution has never once been necessary."

"Important, too, is the fact that almost all our shipments—more than 1,000 a year—cost us less with Air Express than with other air services."

It pays to express yourself clearly. Say Air Express! Division of Railway Express Agency.



Air Express



GETS THERE FIRST via U.S. Scheduled Airlines

CALL AIR EXPRESS . . . division of RAILWAY EXPRESS AGENCY

● Britain's Prime Minister Churchill and Foreign Secretary Eden will visit the White House next week—on an almost desperate mission.

● With President Eisenhower and Secretary of State Dulles, they will seek a way out of the West's mounting troubles.

● France is without a government. The Geneva conference is all but over. The whole of Asia is threatened by Communists.

● The four statesmen who meet next week will face no mean task:



Can They Hold the Line for the West?

Next week, Britain's Prime Minister Winston Churchill and Foreign Secretary Anthony Eden will visit the White House in Washington. There, with President Eisenhower and Secretary of State Dulles, they will look for a way to reverse the dangerous trend of world events.

For the West is reeling this week—in Indo-China, Geneva, and Paris—from the barrage of military and diplomatic punches thrown by the Communists during the past few months.

There will be no talk in the White House about negotiating a diplomatic settlement with Moscow, as there was when Churchill and Eden came to Bermuda last fall. Instead, the four statesmen will put their minds to the problem of bolstering Western strength. Churchill's hope for an understanding with Moscow has pretty well vanished.

His visit to Washington next week, possibly one of his last official acts before he retires in favor of Eden, will be a symbol of Anglo-American unity.

• **Battlefronts**—Here are the hard facts the four statesmen face:

• In Indo-China, Ho Chi Minh's Communist forces have closed an iron ring around the Hanoi-Haiphong area and thus destroyed any hope of saving northern Indo-China from communism.

• In Geneva, Soviet Foreign Minister Molotov has kept the West divided enough to block the kind of united Western action that might have prevented a Red victory in Indo-China.

• In Paris, the National Assembly has overthrown, as Molotov hoped it would, the Laniel-Bidault government. This government had been a staunch defender of the Western alliance and

of collective action in Indo-China.

Cut it any way you like, the situation looks grim—especially in Asia. The West has suffered a serious defeat at the hands of Moscow and Peking—so serious that all of Asia could be lost to communism in a few years.

The problem the West faces now is how to prevent the growth of a great military empire embracing all Asia and running from Moscow and Peking. Just in terms of American interest in the Pacific, this threat is greater today than was the one posed by Japan in 1941.

• **The Spot**—Nothing that happens at Geneva now can alter the present situation in Indo-China. The Communist success there became inevitable once Britain and the U.S. failed to agree on all-out intervention. Whether the Communists can go on from there to other successes will depend on whether

the West closes ranks as it did in 1950, when the Communists tried to take South Korea.

In Europe, too, the U.S. and Britain are on a spot. Developments in Indo-China and at Geneva have weakened the North Atlantic Treaty Organization. Fortunately, though, things haven't reached the pass in Europe that they have in Asia. For Molotov has fallen short of his second Geneva goal—getting a defeatist government in France that would break away from NATO.

I. Moscow's Plans

This is no mean challenge the West faces today. And it is not limited to Indo-China. Molotov is shooting at this weak link in the Western armor only partly to add more territory to the Communist empire. He is also doing it to disrupt the whole Western alliance and tip the world balance of power irrevocably to the Communist side.

• **No Middle Ground**—This policy is paying off in Indo-China. And clearly Molotov expects it to pay off elsewhere. In effect, he is saying to all of non-Communist Asia and Europe: There's no middle ground between the U.S. and the U.S.S.R. And he seems to believe that the Kremlin—despite the economic problems it faces inside Russia—has the power to isolate the U.S. from Asia and Europe within the next few years.

One thing is absolutely clear now. Moscow never intended to settle the Indo-China war by diplomatic means. The Russians planned to use Geneva to gain time for military victory in Indo-China, thus put the Communists in a position gradually to take all of Southeast Asia.

• **Intervention?**—Molotov's plan has worked well in Asia. He has northern Indo-China in the bag, perhaps the whole country. In fact, things have almost reached the point where Eisenhower and Dulles face in Southeast Asia today much the same problem as former President Truman and Secretary of State Dean Acheson faced in China in 1948: How to meet the Communist enemy that had grabbed hold of the social and nationalist revolutions sweeping postwar Asia.

Truman and Acheson were convinced in 1948 that U.S. military intervention was no answer in China, especially at a time when the U.S. was committing itself to save war-torn Western Europe militarily and economically.

Today Eisenhower and Dulles seem to have come to about the same conclusion about Indo-China: that the U.S. alone can't effectively intervene to save it now that Communist-led nationalism has won so much ground.

It's too soon to say exactly how this

new threat in Asia will be met. It depends a lot on how Geneva winds up, on what happens in France, and on how far the Communists plan to exploit their military superiority in northern Vietnam and northern Laos and Cambodia.

II. Defending Asia

Assuming, as you almost must this week, that Geneva ends with a deadlock on Indo-China, you can be sure that the U.S. and Britain—and probably France—will push fast to form SEATO, a Southeast Asian defense pact similar to NATO. This pact might come to life in at least two different ways:

Suppose the Communists try to destroy the French army that is now concentrated in the Hanoi-Haiphong area and also try to grab all Laos and Cambodia. In that case, it's possible there might be a limited U.S. intervention at Haiphong to help evacuate the French army and as many civilians as can get out. And SEATO might begin to function as a military group put together largely to save Saigon (key military base in southern Vietnam) plus southern Laos and Cambodia.

But France might still be able to make a partition deal with the Communists after Geneva—a deal that would let the French withdraw peacefully from Haiphong and maintain some kind of foothold in southern Indo-China. In that case, SEATO might gradually come into being as a full-blown defense pact that would include the U.S., Britain, France, Australia, New Zealand, Thailand, and the Philippines. Then SEATO would try to get the support of the Colombo states—India, Pakistan, Burma, Ceylon, and Malaya.

• **Eye-Opener**—Whatever disadvantages Geneva may have had for the West, it has at least brought the South Asian states, including India, to realize that Red China might be a real menace to their security. India's Prime Minister Nehru himself seems to be changing his mind, after the way his representative at Geneva was rebuffed by Molotov and China's Chou En-lai. That was one of the main purposes Eden had in sticking with Geneva to the bitter end.

It's even possible that through SEATO you could get a collective defense against internal Communist uprisings in South and Southeast Asia.

However, Washington observers are convinced that if SEATO is to meet the threat of Communist-sponsored social revolutions, something more will be needed—a new economic plan that would integrate the industrial and agricultural development of all the free Asian countries and link this development with Japan. The Truman Administration was toying with some such idea just before it left office. And you

can be sure the Eisenhower Administration will pick it up again.

III. France and Europe

The four statesmen who meet in Washington next week will undoubtedly include France as one of their major worries. The French crisis goes deep.

No French government before this has ever fallen under diplomatic pressure from a foreign power. Furthermore, there's no certainty that a new, strong government will arise this year—a government that can make a decision on the European Defense Community and German rearmament, a decision that Britain and the United States will insist on.

• **Other Side**—All this will hang like a cloud over the four men who meet at the White House. So will the French military defeat in Indo-China. France is definitely through as an Asian power. Its weakness can be blamed for much of the West's desperate trouble in Southeast Asia.

But there may be a silver lining to even this cloud. France's loss in Asia may actually work to strengthen the Western alliance in Europe.

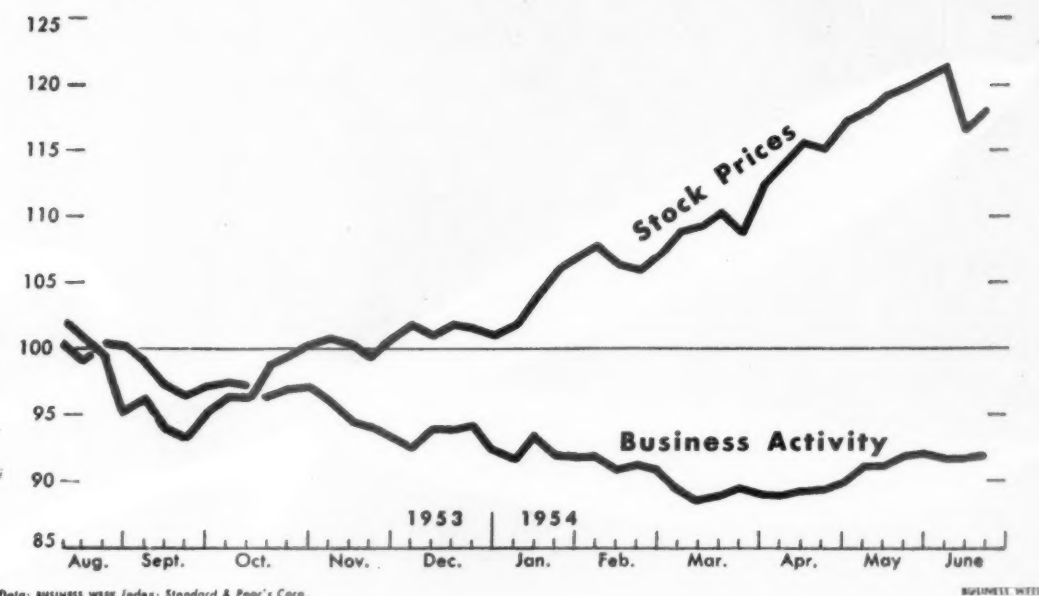
It's already clear that Molotov hasn't done so well in France as in Indo-China. Although the Laniel-Bidault government has been defeated, no group in opposition except the Communists is ready to accept for France the status of a semi-satellite of Moscow. The French nation is clearly no longer willing to carry the burden of the Indo-China war, but neither is it willing to play Moscow's game in Europe.

Whether the present Assembly produces a government, or new elections are held, there is no chance that France will leave NATO. Molotov may even have so overplayed his hand that France will finally accept EDC—and with it a real partnership with West Germany. If France gets rid of the military drain in Indo-China, it will be less afraid of being overshadowed in EDC by German military power.

• **Outlook**—If things take this turn, the outlook in Western Europe could become more favorable than it has been for a long time. For one thing, NATO's military strength has risen greatly in the past two or three years. According to Gen. Alfred Gruenther, NATO's commander-in-chief, there is enough military strength in Western Europe today to stop a Russian army dead in its tracks.

Furthermore, Western Europe's economy is far stronger today than anyone expected a year or two ago. That goes for France as well as West Germany, Britain, and the Benelux countries. There is no sign of the economic difficulties constantly predicted by Soviet propagandists.

August, 1953=100



WHEN THE SCISSORS CLOSE, WHICH BLADE WILL MOVE? THAT'S . . .

The Stock Market's Problem

Stock prices, for two blood-cooling days last week, showed signs of wanting to come down and renew acquaintance with the business curve. But, before the second day was out, the familiar bargain hunters were back bidding quotations up.

This called attention once again to the anomaly of stocks going one way and business another. The situation was likened, a few days ago, to the jaws of a shears (chart, above) by Dr. Arthur F. Burns, chairman of President Eisenhower's Council of Economic Advisers.

• **The Lower Blade**—While nobody has said that the scissors must close, Dr. Burns accepted the logic of it. And his surmise was that the lower blade would come up to meet the upper.

Businessmen and investors alike can applaud his theory:

• Moving the lower blade up certainly would be the painless way.

• Moving the lower blade up is becoming a more plausible idea if only because the business curve seems finally to be cooperating.

But, at noon on Wednesday, June 9, Wall Street wasn't too sure that the upper blade wasn't in the act of moving down. Judged by the popular averages,

the market had shed 7 or 8 points in about as many hours of trading. The break was the worst since hostilities started in Korea.

Traders were used to brief, breath-taking dips in this bull market. But they also were used to seeing prices pick themselves up off the floor, dust themselves off, and serenely resume their rise.

• **Among the Missing**—But their bull market this time had failed to measure up to past performances in one detail that many felt had a certain technical significance. On previous sinking spells, the bargain hunters always had been on hand at the opening of trading the day after the break. This time they weren't; they didn't take charge until the second day had almost spent itself.

Twenty-five years ago that wouldn't have been surprising. A rush of selling one day almost always brought a weak opening the following day. But that was partly because of thin margins; weak accounts got overnight calls for more cash. Some couldn't or wouldn't meet the demand and their holdings were dumped at the opening.

That no longer is characteristic of the market. It's a rare thing to hear of margin calls. Most accounts, what with

the 50% cash requirement for stock purchases and paper profits, are thickly cushioned.

And the well-heeled institutions have the reputation of coming in for "cheap" stock on any setback. In fact, they are generally believed to be responsible for the strong openings on days after a bad break.

So the question naturally arose last week, "Are prices now so high that the investment trusts and pension funds won't react to bargains?"

• **The Rally**—Perhaps the qualms were premature. The market rallied late last week and early this. But the volume of buying wasn't large; it was more that prices rose because the amount of stock being passed for sale had shrunk. Some of the worriers still weren't reassured.

Then, too, brokers were concerned about stop-loss orders. People with good profits had placed open orders to sell a little below going quotations. Hitting stop-loss orders contributed to the severity of last week's break—and you get the impression, talking to the men who handle the orders, that it could happen again.

It's still a bull market. But after last week's break, it is a somewhat shaken bull.

While Newport harbor was filled with the sails of yachtsmen setting out on their biennial race to Bermuda, Hoot Mon (right) stayed at home. The unconventional hull design of "the boat of the year" automatically disqualified her.



Bermuda Race:

Somewhere along the middle of next week a bunch of businessmen with blistered hands will ease their aching joints into bar seats at the Royal Bermuda Yacht Club in Hamilton, Bermuda. By that time, the biennial Newport-Bermuda boat race should be over—at least for all but the stragglers.

This year, about 75 boats varying in length from 36 ft. to over 70 ft. will make the run through 635 miles of ocean that may batter them all the way, or be as placid as an inland lake. Most of the skippers and crews will be amateurs. The few professionals will probably be on the big boats like John Nicholas Brown's 73-ft. yawl Bolero, or the Argyll, a yawl owned by W. T. Moore, president of Moore-McCormack Lines, Inc. The number of boats competing is a far cry from the three that participated in the first such jaunt in 1906.

Yachting itself has come a long way since the days of Sir Thomas Lipton and the America Cup. In those days, ocean racing was a sport for large, expensively designed boats that were little good for anything but racing. Today's ocean racer is also a comfortable cruising yacht, usually easy to handle and not nearly so expensive to maintain as the older types—although maintenance for a boat such as the Bolero can run as high as \$50,000 a year.

• **Favorites**—Some of the eye-catchers in this year's race will be Ticonderoga, a 72 ft. ketch owned by John Hertz, Jr., son of the founder of Yellow Cabs; Royono, the U.S. Naval Academy yawl that breezed in first in elapsed time in 1952; and Carina, the 1952 winner on corrected time, owned by Richard S. Nye, partner of Georgeson & Co., of New York.

Ticonderoga will probably be the



CARINA, winner of the 1952 race, represents the more conventional boat design.



HOOT MON'S HULL, with long overhangs and chopped-off bow and stern, has earned her the moniker "Ugly Duckling."



HOOT MON'S DECK, clean and uncluttered, explains partly why she is easy to handle, cheap to build.



ARGENTINE racer with aluminum masts is an example of sleek, classic hull design.

The Favorite Didn't Sail

"scratch boat"—that is, the boat favored to win in elapsed time. The others will have time handicaps of varying size, depending on their ratings by the Cruising Club of America. Thus, if one of the bigger boats reaches Hamilton first, it would still have to best many smaller boats with large handicaps that may be many hours behind it. In 1952, Roy-ono made the Newport-Bermuda run in 97 hours, but Carina, which was nine hours behind, won on corrected time.

• **Scratched**—The boat of the year, however, will not be racing to Bermuda next week. The 59-ft. Hoot Mon represents a new departure in hull design (pictures). It has become the most controversial ocean racer of its generation. The yawl—owned by Charles Ulmer, a City Island sailmaker, Worth Brown, who designed and built her, and Lockwood Pirie, who sails her—was disqualified. An old Cruising Club of

America rule states that a boat's "overhangs"—its over-all length minus its waterline length—cannot be more than one-third of its over-all length. Hoot Mon's overhangs measure about 45% of her over-all length.

Hoot Mon has been the hottest boat of the racing season in the Caribbean area. She won three out of four big events there, then came north to race in the Storm Trysail Club's Block Island race—where she took honors for her class, but did not place high on corrected time.

The yawl is a strong departure from conventional design in many respects. She is fashioned much along the lines of a Star boat, a lightweight extremely fast sloop, with a hull shape that seems to plane over the water rather than cut through it.

• **Odds**—Her owners estimate that Hoot Mon could be duplicated for about

\$25,000. Many builders regard this as a forward step in building fairly cheap, fast ocean racers that can double as cruisers. And the new design comes at a time when many customers are having their boats built in Europe, where costs are below those in the U. S. Some builders fear that the recent 50% slash in tariffs on such boats may accelerate this trend.

Although Hoot Mon is not racing to Bermuda, she will compete in two other important races in July. One is the Chicago-Mackinac race, the other from Port Huron to Mackinac. Yachting skeptics who have seen "radical" designs come and go regard these as crucial tests for Hoot Mon. But whether she wins or loses, her three owners have won plenty of recognition. But they haven't decided to go ahead with duplicating the yawl; they're still experimenting with the design.

Controls: So Far, It's Just a Tune-Up

- Materials priorities are already operating and could be expanded quickly—but effect now is small.

- There's no sign yet that Administration wants immediate power for standby wage and price controls.

- But law drafts are ready, and Office of Defense Mobilization is working on rules for individual industries.

A manufacturer of building materials showed up in Washington recently to feel out chances of getting redwood shingles—now in a market slump—exempted from any government price freeze that might be in the works.

He was one of many businessmen who have come on similar visits to the Office of Defense Mobilization since the turn for the worse in Indo-China. They're all anxious not to get caught in a freeze with their prices down.

- **Groundwork**—They may be a bit early, but talk of crisis breeds talk of possible controls on industry—prices, wages, materials. And it throws the spotlight on ODM, where a small crew of government planners has unobtrusively been laying the groundwork for controls in any future war.

Their plans are fairly solid in the materials field, far less precise in economic stabilization. The big factor is that some skeleton material controls are already on the books. The situation stems from last year's extension of the Defense Production Act, which granted the President priority and allocation authority on materials, but said nothing about stabilization controls.

A provision granting the President standby authority on price-wage controls, pushed by Senate Banking Committee Chairman Homer E. Capehart (R., Ind.), was voted down by Congress last spring, mainly because of the Administration's disinterest. The Administration's view at that time: Since it's impossible to anticipate future emergency conditions, a standby control law based on present assumptions would most likely be useless.

- **Materials**—The limited materials controls, which are delegated to the Commerce Dept. under the priority and allocation provisions of the law, could be quickly expanded in case of a new war. Since most metals and industrial equipment are in good supply, the system involves no real control on anyone.

Its operation is simple: Steel, copper, and aluminum mills are directed to set aside specific tonnages for military and atomic energy contractors. Defense firms get priority for procurement of other metals and such equipment as machine

tools, heavy electrical equipment, and industrial machinery.

Only in the case of such still scarce metals as nickel, cobalt, and titanium is there a squeeze on civilian users. Titanium is the only material actually under full allocation; just 10% of supply is available to civilian industry.

In case of war, there would be no immediate need for new legislation on material controls. The present law is adequate to swing the existing system into a full-scale control plan with restrictions on nonessential production and complete rationing of metals and chemicals.

- **Prices and Wages**—But legislation would be required before the President could do anything about prices and wages. Lately, there has been much conjecture that the Administration will seek standby authority for a 90-day freeze on prices and wages before Congress adjourns. That's what worries the roofing material manufacturer and other businessmen. But at midweek, there was still no sign of change in the Administration's earlier view.

According to some experts, the President would call for standby power only when and if he finds it necessary for a new military buildup of at least \$5-billion. So far, however, Administration leaders play down talk about big new money requests for defense spawned by Indo-China.

At today's business level, most officials feel the national economy could take on up to \$10-billion of new defense spending without much pressure on prices and supplies.

- **Bill Drafts**—Some preliminary planning has been done on price-wage controls, however. In fact, drafts of two bills are stacked in ODM files ready to use.

One would give the President authority to slap on a 90-day freeze on prices, wages, and rents, and to select a base date for ceilings.

The other is a long-term omnibus economic stabilization bill patterned after the Defense Production Act of 1950. It contains Korea-type provisions for Federal Reserve Board credit controls and defense loans, and authority for

price-wage ceilings for the duration of any new war.

- **Debate**—These drafts don't mean, however, that the Administration would use the freeze authority right off the bat in case of Indo-China intervention. The decision would depend on such factors as the level of the economy at the time, the war's extent, and its chances of spreading.

There's a difference of opinion, too. Some experts think you need a little inflation to fight a war, especially if it starts after a leveling of business activity. Others argue that any kind of conflict, limited or global, would put pressure on prices, that an immediate clampdown would give time to figure out how tough or soft longer-range controls should be. They argue for action across the board, not for selected industries only, and point out as a horrible example what happened right after Korea: a quick freeze on automobile prices, with no ceiling on raw materials.

- **Uncommitted**—Actually, the Administration isn't committed to emergency price controls at all. The Eisenhower planners would prefer to take care of defense or war inflation with indirect measures. ODM Director Arthur Flemming's theme is this: "Efforts will be directed toward greater use of credit and fiscal measures to reduce burdens of controls."

But assuming a price-freeze, a major policy decision is still to be made on how to administer controls after the first freeze period. The World War II ceiling-price system made virtually no allowance for passing on producers' increased costs; the later Office of Price Stabilization method tied profit margins to a base period, with more flexibility on pass-throughs.

- **In the Works**—Planning goes slowly, because ODM's stabilization planning staff is small: only Assistant Director Glenwood J. Sherrard, three economists, a lawyer, and several secretaries. With the two basic legislative drafts completed, it's now getting down to the price rules in each industry.

At present, this is mostly a matter of ironing out general principles and methods—taking into account cost relationships, price differentials, etc., within each industry—rather than writing detailed regulations.

First step is to call in an executive from the industry as part-time consultant to study former regulations and recommend how to make them more effective for the future. An informal committee of executives from the same industry next goes over his report—then it and the committee's views are filed away for use when needed.



GOP'S ACE is popularity of President Eisenhower. To cash in on it . . .



CITIZENS FOR EISENHOWER have been revived to hold rallies for GOP candidates. Their pitch: Vote for a Republican congressman to help Eisenhower. It looks like . . .

A Close Race for Congress

Today, four and a half months before election time, it looks like a ding-dong battle for control of Congress. Whichever way it goes, the margin is pretty sure to be narrow, just as it is now: in the House, 219 Republicans, 215 Democrats, one independent; in the Senate, 48 Democrats, 47 Republicans, one independent.

In the House, the 435 races will be home district affairs, hinging on local conditions and the personalities of the candidates. Unless a tide should develop, no one expects either side to have a margin of more than 20 seats in the next session. The Democrats are slightly favored.

In the Senate, the 35 contests will be affected more by national issues. But local economic factors, the strength of the individual candidates, the effectiveness of party organization will still play a big part. Here the Republicans are favored, with only 13 Republican seats up and most of them safe. Of the 22 Democratic seats, a half-dozen face tough contests.

• **The Chances**—Only four Republican seats in the Senate are in much doubt: John Sherman Cooper, opposed in Kentucky by former Vice-President Alben Barkley; Homer Ferguson, opposed in Michigan by ex-Sen. Blair Moody; Henry Dworshak against probably Glen Taylor in Idaho, and the New Jersey seat of Sen. Robert Hendrickson, who is retiring.

In the House contests, Republicans think they can hold most of their present seats, including their four new ones in the South. However, they don't have any illusions about further inroads in that region.

• **Summer Tryouts**—So far, the primary

campaigns for party nominations don't begin to answer the question: Will the voters give Eisenhower a majority in Congress for the next two years?

All except two congressmen have won renomination by their parties. Rep. Homer Angell of Oregon lost renomination by the Republicans; Rep. Robert Crosser of Ohio failed to get renominated by the Democrats.

The next significant primary comes Monday in Maine. It's a Republican battle: Sen. Margaret Chase Smith, a pro-Eisenhower veteran of Congress, against Robert L. Jones, a follower of Sen. McCarthy.

• **The Issues**—Politicians admit they can't see definite patterns in what has happened so far in the summer primary season, but they do see the makings of big issues that could swing the election. These include:

Eisenhower's popularity. Wherever possible, naturally, Republicans will try to hitch their candidates to the President's coattails. However, if a district didn't elect a Republican congressman in 1952 when Eisenhower headed the ticket, it isn't likely to do so now. Strategic appearances by the President (pictures above) may help a few candidates (BW—May 29 '54, p98) but can't be expected to produce a sweep.

Foreign policy. The situation in Southeast Asia could provide an issue dwarfing all domestic questions. The election might be decided by a crisis in late summer or early fall that called for committing troops. War or serious threat of war would be the Administration's most serious test to date. In the Midwest, Republicans freely admit that intervention in Indo-China would hurt.

Farm price supports. The President's

dogged insistence on whacking down farm surpluses in favor of a flexible price support program is drawing mixed reactions in the two political camps. Democrats are predicting that enactment of the Benson farm program could cost the Republicans 40 seats in the farm belt. Republicans such as Sen. Milton Young of North Dakota and Rep. Harold Love of South Dakota are echoing this line.

However, Republican campaign strategists say they can't find a single Republican who will privately admit that the flexible support program will defeat him. They contend that the political impact of the farm program has been blown far out of proportion. At most, they say, it should be weighed as only a contributing factor, not as a decisive one.

Prosperity. An even more important factor will be economic conditions at election time. Democrats, who have had their greatest vote appeal in times of economic downturn, have been accused of trying to talk the country into a recession. A late-summer downturn could well produce a Democratic tide. There are no indications now, however, that unemployment will be anything more than a regional factor, bearing only on districts where business activity is sharply depressed. Even pessimists among Republicans are beginning to agree that Eisenhower was wise in accepting Treasury Secretary George Humphrey's advice to give the economy its head.

McCarthy. The controversial junior senator from Wisconsin will be active in the campaign, despite the avowal by GOP national chairman Leonard Hall that McCarthy won't be asked to

peak for Republican candidates. Any senator who wants McCarthy to speak in his state will be able to get him through the Senate Republican campaign committee. Prospects are that the demand will be heavy and that McCarthy will have more requests than he can fill, particularly in the Midwest.

Senate Republicans are not ready to turn their backs on McCarthy—and it's not just that they fear him. McCarthy has many admirers and supporters in Congress who view him as more their type of Republican than Eisenhower is.

One of McCarthy's strongest backers is Sen. Everett Dirksen of Illinois, who, as chairman of the Senate campaign committee, will coordinate speaking engagements for the Wisconsin senator. In areas where McCarthy is considered too controversial, others such as Dirksen himself will be used.

In the House contests, McCarthy will serve as his own speaker's bureau, will come in where invited by candidates he feels he can help.

How much can McCarthy help? The Republicans are divided on this. Some view him as opposing communism almost single-handedly, others object to his methods, and still others don't object to him but feel that he is splitting the party. Those who take the dim view argue that the voters McCarthy might influence are rock-rubbed Republicans already safely in the fold. Perhaps his major contribution would be to dispel the apathy that plagues the "m" party in off-Presidential years.

Democrats, smarting under their 1952 defeat and charges of "20 years of treason" are stirred up, and they will turn out their faithful. The Republicans need something to stir up the voters, too, and perhaps that thing is McCarthy. The big question there is what influence he will have on independent voters.

Citizens for Eisenhower. The ace up the GOP sleeve is the reconstituted Citizens for Eisenhower movement that will campaign for many GOP candidates. The Citizens will confine their efforts to roughly 100 marginal districts—those the Republican incumbent won in 1952 by 55% or less of total vote. These are chiefly the suburban districts, heavy with independent and "swing" voters. That's where the GOP figures the election will be won or lost.

The Republicans are counting on the Citizens to help swing some close districts by producing an extra thousand or so votes, which could be the margin of victory. Actually, in 1952, eight districts were carried by margins of 1,000 or less. The Citizens' approach will be: Vote for a Republican congressman to help Eisenhower.



THE WINNER: Robert R. Young (second from right) marches to Central headquarters. To his right: new director Mrs. Lila Wallace, new president Perlman. Minutes later . . .



NEW BOARD convened in room dominated by Commodore Vanderbilt portrait. Only absentees: Richardson and Murchison. Perlman, not a director, sat in. It was a . . .

Quiet Changing of Guard

Robert R. Young, a man who has had his eye on the New York Central RR. for nine long years, finally got his hands on it this week.

On Monday morning, an hour after official announcement of his victory in one of the bitterest proxy fights in years, Young marched into Central headquarters in New York and convened his new board of directors. As expected, he was elected chairman (at \$1 a year) and Alfred E. Perlman, 51-year-old executive vice-president of the Denver & Rio Grande Western RR, was named president and chief executive officer.

Young would have won even without

the 800,000 shares that his Texas supporters, Sid Richardson and Clint Murchison, threw behind him—his slate averaged a winning margin of 1,067,000 votes.

Young had only 35% of the individual stockholders on his side, but he had the big blocks that counted, including almost two-thirds of the stock held in brokers' names.

At midweek, Young hadn't elaborated on his plans for the Central (BW—Jun.12'54,p27). He did announce, though, that members of the board and the executive committee would waive their fees until Central stock was on a dividend basis of \$2 a year.

will your suppliers carry you...

if trouble comes?

No one can tell when adversity may strike—it could be a fire, a national emergency or an industry slump. Most of us tend toward the bright side and don't often think of the importance of financial or technical aid as a consideration when choosing a supplier. But most men of experience agree that it is important to do business with firms that not only have the interest but the ability to carry you in an emergency.

On no less than two occasions—the Great Chicago Fire and the Panic of 1893—our own company would have been out of business had it not been for the cooperation of our sources of supply. So, we speak from experience when we attest to

the value of good dependable sources. They may mean the difference between success and failure.

The Ryerson Company, through over 100 years of business, has been privileged to help many firms when the going was rough. So, whether it is just steel in a hurry or help when it counts most, call on Ryerson. You will not be disappointed.

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**NATIONAL BLANK BOOK
COMPANY**

Holyoke, Mass. • Dealers Everywhere

BUSINESS BRIEFS

Piggyback dismantled: The Interstate Commerce Commission has suspended rate schedules for new trailers-by-rail services that had been due to start this week on six railroads. The roads affected are the Pennsy., Erie, Lackawanna, Nickel Plate, B&O, and Wabash; other lines already operating piggyback services may continue them. The six carriers have already protested the ruling by ICC, which plans a full-scale investigation of the proposed services.

U. S. commercial exports, including economic aid, were \$4.1-billion for the first four months of 1954. That's a 1% boost over 1953; but total exports, including military items, were only \$4.8-billion, a 9% drop. U. S. imports for the period were \$3.5-billion, off 8%.

Big April sales have pushed Chevrolet ahead of Ford for auto leadership in the first four months of 1954. Ford was outselling its rival for the first quarter—288,809 to 286,603—but Chevrolet then spurred to a 412,858-to-410,284 lead.

Single hop flights from coast to coast with one crew have been temporarily O.K.'d by the Civil Aeronautics Board. Hitherto, nonstop westbound passenger flights violated the CAB limit of eight hours for domestic operation by one crew. The new 10-hour limit, long opposed by the pilots' union, affects American, United, and Trans World Airlines.

"Excessive" gasoline stocks have moved oil buyers to recommend that the Texas allowable of crude production for July be cut 109,770 bbl. below the June figure.

Western Union has asked the Federal Communications Commission to approve rate increases averaging 11% on interstate messages and money orders. Similar intrastate increases will also be sought. The raises would add an estimated \$10-million a year to gross revenues.

Time (Inc.) turns backward for a name for its new sports magazine, scheduled to appear in August (BW—May 8 '54, p.34). The winning name, Sports Illustrated, first appeared in 1938; the Time version will be its third incarnation.

Sears, Roebuck prices have dived to their lowest point since 1950. Cuts in the 1954 fall catalog, out this week, average around 2 1/2% under the spring edition, 3 1/2% under the fall of 1953.

Get
this report...
on the
**BIG
TRUTH**
about boilers



Out of 86 years of experience in designing and building quality steam generating equipment comes one of the most revealing reports ever written on boilers. We at Kewanee make that statement because these findings are based on fact and truth . . . on careful search and engineering exploration. In it we present:



Here you will discover a way to judge boilers so you can be sure of the lowest operating cost—highest efficiency—greatest dependability—maximum flexibility—longer boiler life. You will learn how to eliminate confusion in considering boilers . . . know how to compare like examples and not be misled by vague technical claims. You can be SURE you have made the best buy when you know the BIG TRUTH about boilers . . . and you will choose Kewanee boilers because you know you will save on fuel—get greater efficiency—cut repair bills.

YOU can depend on KEWANEE engineering

KEWANEE-ROSS CORPORATION—Kewanee, Illinois
Division of American Radiator & Standard Sanitary Corp.

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Church Seats & Wall Tile • Detroit Controls • Kewanee Boilers
Ross Exchangers • Sunbeam Air Conditioners*

**THE KEWANEE
REPORT TELLS ALL . . .**

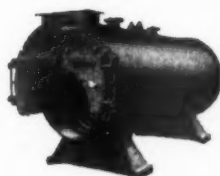
How to cut fuel costs.

Data on "cruising speed" savings.

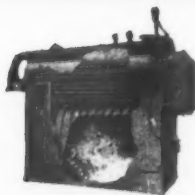
Facts on "nominal capacity" operation.

*Why Kewanee Reserve Plus is the safe way
to rate steel boilers.*

*Facts on fallacy of buying on
"maximum capacity."*



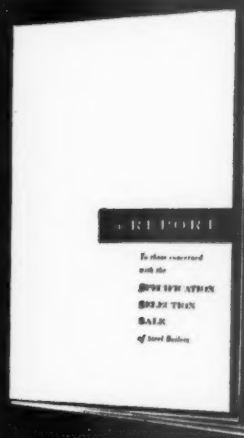
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M-800 SERIES**



**KEWANEE
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**DISCOVER THE
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ABOUT BOILERS**

Send for this free booklet. You will be glad for 20 years if you act today. Use handy coupon.



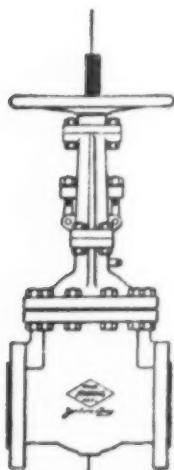
KEWANEE-ROSS CORPORATION—Kewanee, Ill.
Please send me free book titled, "A REPORT to Those Concerned with the SPECIFICATION, SELECTION, SALE, of Steel Boilers"

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BV

A secure foundation

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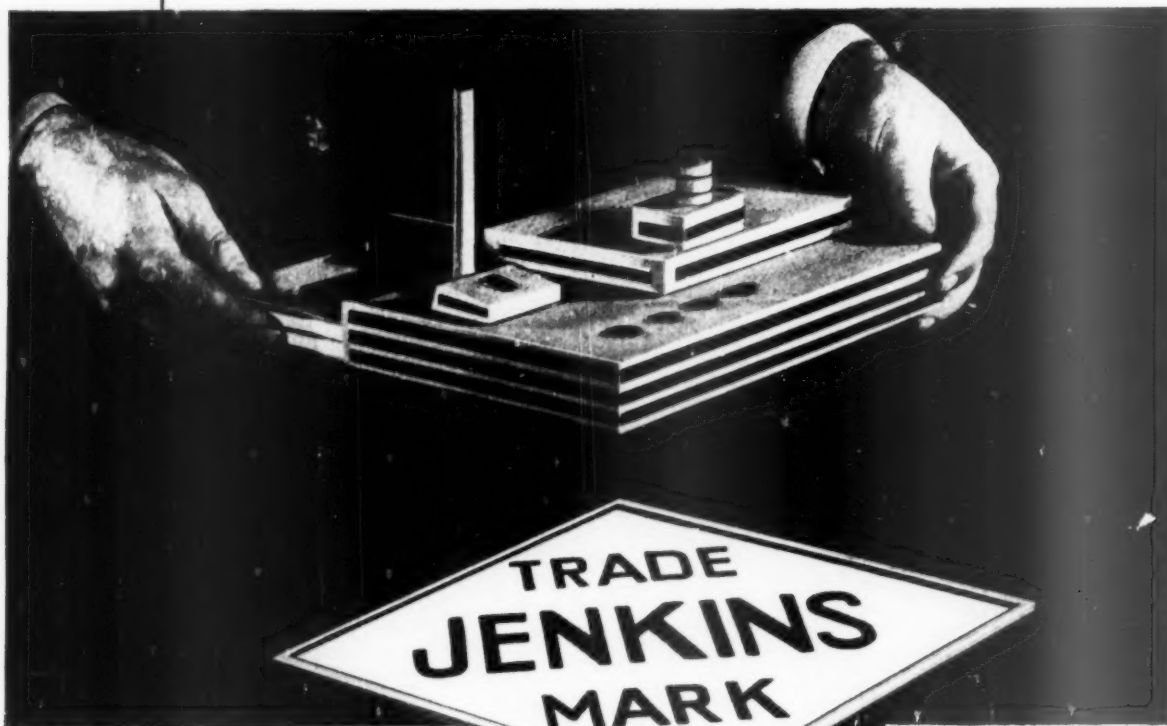
The famous Diamond and Signature trade mark on Jenkins Valves has merited the continuing trust of the nation's foremost builders since 1864.

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Jenkins Bros

WASHINGTON OUTLOOK

WASHINGTON
BUREAU
JUNE 19, 1954



Washington's growing optimism about business is making it easier for the Eisenhower team to tackle its political problems with courage. The Administration hopes it can now lay down a solid "peace and prosperity" slogan for Republican candidates to use in November.

The critical business indicators seem to be inching upward (page 17).

New forecasts predict construction will hit a new high in 1954—a volume of \$36-billion as against \$35.3-billion in 1953, up 2%.

Retail sales are holding up. Right now, estimates for the year are only slightly below last year. May figures, just out, totaled \$14.3-billion, only 3% below last May.

Industrial production, according to the Federal Reserve Board index, is recovering. After two months in a stall, the index in May edged up two points to 125. That's significant because production usually declines in May.

Expansion of business facilities, while reported down in the latest Commerce Dept. report, is firmer on the basis of more recent figures, according to Economic Adviser Arthur F. Burns (BW—Jun.12'54,p33).

Employment is firming up after the early-year downturn. Administration officials no longer fear the influx of students into the labor market.

The confidence inside the Administration is bolstering President Eisenhower's program in this election year.

On farm policy, he is getting bolder. With no depression threatening, he and Secretary Ezra Taft Benson are coming off the defensive as regards "flexible vs. rigid" price supports. The argument is that the farmer, though his share of the economic take is less than in boom times, is not so badly off. Besides, Benson is arguing in Cabinet meetings, with Presidential blessing, farm income is not based primarily on 90% of parity supports.

So the theme is polttic for the consumer in the really close Republican districts (page 31). While Congress is still inclined toward a law extending 90% guarantees, Eisenhower is stiffening in his threat to veto such a law and let the Hope-Aiken flexible law take effect. Benson asks just which congressmen say seriously they'll be beaten on the farm price issue. And the GOP political experts haven't given him a convincing answer yet.

Taxes are another case in point. The Administration is holding firm against further relief on personal income taxes. Even Democrats are lessening their attacks. The bill before the Senate still is an "incentive to business activity" bill, and the Administration is holding to it.

Churchill's visit is bound to have its political impact. It is, of course, designed to make repairs in U.S.-British relations as regards Indo-China (page 25). He will strengthen the faction in the Administration that opposes early intervention to save the French in Vietnam. Eisenhower already leans toward the "go-slow" view, rather than loosing ships and planes in an attempt at stopping the Reds on another "local" front.

A Southeast Asia alliance is the cornerstone of Eisenhower's "peace" plank. The talks with Churchill will bear down on this. This squares with two other facts confirming Eisenhower's cautious policy:

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
JUNE 19, 1954

Military appropriations are not going up—the Senate will vote close to what the President asked in his budget. Some Democrats and military people will urge a \$3-billion to \$5-billion increase to finance action in Indo-China. But this will fail. And the Army, whose funds have been cut sharply already, will get no additional money.

Draft calls starting in July will go up only to 23,000 from the present 18,000 a month. If we should intervene in Indo-China, military people estimate the draft call would go to 50,000 a month. As it is, though, the Army will be held to 17 divisions. That's about 1.2-million men.

The Senate is putting new life in the Vance plan for a defense facilities reserve. The Appropriations Committee allocated \$250-million, after the House had voted no funds at all. Actual purchase of new tools for a standby reserve will be slight at first, but the Pentagon is expected to lay out some \$100-million in fiscal '55 for "packaging" modern facilities. The Senate action at least keeps the Vance plan alive.

Congress is endorsing the Administration's power policy of letting private interests take more part in river development. Latest evidence is congressional approval of private development of the Coosa River in Alabama. During the Democratic regime, this five-dam program had been set for federal construction. Now Congress has O.K.'d a move to let the Alabama Power Co. do the job.

Labor Secretary James Mitchell is forcing the canning industry to pay "prevailing wages" to its workers under the Walsh-Healy law. The canners had sought again to get an exemption in selling to the Defense Dept. during the canning season. But Mitchell decided "no," even though the Defense Dept. wanted the exemption approved and even though Democratic Secretaries of Labor had invariably given it in the past.

Eisenhower's decision on lead and zinc tariffs is being awaited by both sides in the free-trade fight (page 146). It will have as much significance—or more—as congressional approval of a one-year extension of the Reciprocal Trade Agreements Act. The President will make up his mind soon on a recommendation from the Tariff Commission that duties be increased to protect domestic lead and zinc.

He's expected to turn down the request. But spokesmen for other industries are ready to put in requests for escape-clause relief if the decision goes the other way. They figure that the Tariff Commission would be on their side. Rejection of the lead and zinc recommendation will be viewed by other countries as stabilizing present tariff policy.

A tariff boost recommendation on behalf of watchmakers—also pending decision at the White House—is more complicated. Eisenhower leans toward giving relief here on the theory that national defense would need the precision industry and workers in case of war.

A new "study" of tariff policy is being planned by the House Ways & Means Committee during the congressional recess. It's being backed by high-tariff groups who want a subcommittee to go around the country taking testimony from business groups. The idea is to get ammunition ready for the Administration's planned all-out fight for the Randall Commission's recommendations next year.

IH PHOENIX "ROUNDUP"

IH Stages the Greatest Earthmoving Show on Earth

New, complete INTERNATIONAL line introduced to world-wide distributor organization at Industrial Power "Roundup"

Promptly at 9:00 A.M. recently, a barrage of aerial bombs exploded over the desert south of Phoenix, Arizona.

The explosions signaled the start of the greatest show ever presented by an individual heavy equipment manufacturer—the introduction of the new INTERNATIONAL Industrial Power line.

The International Harvester Industrial Power "Roundup" was a three-day presentation of more than 80 pieces of heavy earthmoving equipment, materials handling machinery, diesel and carbureted engines and power units in the new, expanded INTERNATIONAL Industrial Power line.

But the 612 INTERNATIONAL Industrial Power Distributors, their bankers and associates from the United States and 24 foreign countries got more than a first look at the big parade of IH Industrial Power.

They saw the answer of IH to the present and future requirements of one of the world's biggest industries—construction.

As an IH official told them, "There's no foreseeable end to the present heavy construction boom. We are determined to anticipate the demand and to build machinery necessary for the continual economic development of America and the free world."

HIGH ON A HILLTOP, Bill Hall and his new, 155 drawbar horsepower INTERNATIONAL TD-24 crawler tractor, command a view of IH's 4200-acre Phoenix Proving Grounds, site of the recent INTERNATIONAL Industrial Power "Roundup."



INTERNATIONAL

MAKES EVERY LOAD A PAYLOAD

On the pages following, you will see the whole story, in pictures, of this great demonstration event. Just turn the page to start your own visit to the INTERNATIONAL Industrial Power "Roundup."



PHOENIX "ROUNDUP"



"ROUNDUP" AUDIENCE gets first look at new 155 drawbar horsepower INTERNATIONAL TD-24, world's most powerful crawler. The TD-24, with matched hydraulic or cable-controlled blade, handles the toughest "pioneering" jobs.



PROUDLY PROCLAIMING THEIR SUPERIORITY in their horsepower field, a trio of INTERNATIONAL TD-18A crawler tractors park in front of the "Roundup" grandstand for audience inspection and approval.



LARGEST OF THE SPECIAL PURPOSE MACHINERY displayed at the "Roundup" was this INTERNATIONAL TD-24 crawler with matched Superior sideboom. TD-24 boom tractor will lift up to 45 tons.



TWO NEW PRODUCTS FOR ACCELERATED EARTHMOVING pass the "Roundup" grandstand. Rubber-tired earthmover is the INTERNATIONAL 2T-75, with 18-yard heaped capacity and a top speed of nearly

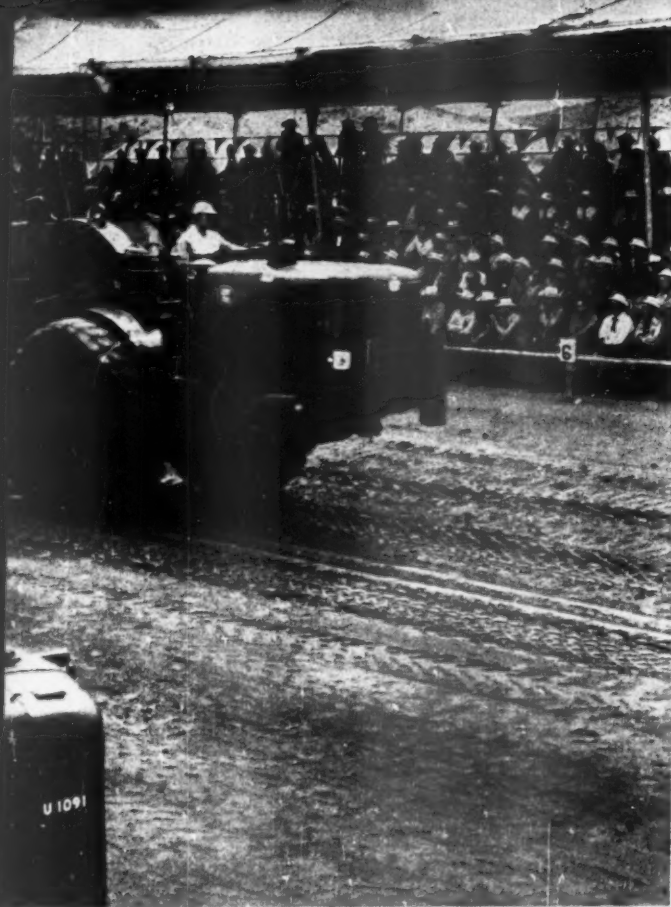
"Every Load"

At the Phoenix "Roundup", INTERNATIONAL showed its distributors a lineup of "phased" equipment specifically designed to meet the requirements of the construction industry.

Included in the long list of equipment were new crawler tractors, ranging in size from 20-ton mountain-moving giants to basement excavators; high-speed units that haul half a railroad car of earth each load;



READY TO TEST A NEW INTERNATIONAL 2T-75 is IH vice-president Harold T. Reishus. Instructions for the run are given by C. E. Jones, assistant sales manager. Holding stop watch at the right is sales manager I. P. Payne. Cactus in picture is famed Arizona saguaro.



25 mph. Pusher is the new 200 horsepower INTERNATIONAL TD-24 torque converter crawler tractor. These are the largest units in the line, which now includes more than 80 pieces of equipment.

a Payload"

a torque-converter tractor that operates as smoothly as chauffeur-driven limousine; equipment equally adept at stockpiling bags of concrete or crates of china; and power units capable of lighting a medium-size city.

By putting the proper piece of equipment on each phase of the earthmoving job, INTERNATIONAL Distributors can show their customers how production profits rise while operating costs fall.



THE NEW INTERNATIONAL TD-24 TORQUE CONVERTER gets a thorough going over by a group of distributors. With same dimensions as conventional TD-24, all equipment that fits the conventional TD-24 fits the torque converter model.

FAST-STEPPING GIANTS PERFORM FOR CROWD. Boss of the heavy earthmoving jobs is this largest crawler tractor-scraper combination manufactured today. Crawlers are the new 155 drawbar horsepower INTERNATIONAL TD-24s. Partner in this big earthmoving act is the new INTERNATIONAL B-250 a 27½-yard heaped capacity push-loaded scraper.



PHOENIX "ROUNDUP"



CHARGE OF THE HEAVY BRIGADE. Part of the equipment used in the "Roundup" leaves the assembly "corral" for demonstration sites on IH's Phoenix Proving Grounds.

Demonstration—Cornerstone of IH Distributor Sales

In only one respect did "Demonstration Day" differ from any other day at the IH Phoenix Proving Grounds: grandstands were erected at each of 10 demonstration sites where distributors could see equipment in action.

Other than that, everything was the same. All equipment went through standard demonstrations and test runs.

Phoenix is only the first "torture" session for IH earthmoving equipment. Additional tests and demonstrations are conducted, year round, at other IH proving grounds and on actual jobsites.

A lengthy and expensive process, but one that assures contractors of this fact: INTERNATIONAL Industrial Power means more power, more speed, greater durability and less operating expense on any earthmoving or heavy construction job.

Your INTERNATIONAL Industrial Power Distributor will gladly arrange a demonstration of the model in the new, complete INTERNATIONAL line "sized" for your job. Let him prove that putting INTERNATIONAL Industrial Power equipment on the job puts more profit in your pocket.

INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILLINOIS



INTERNATIONAL

MAKES EVERY LOAD A PAYLOAD

← **TAKING ADVANTAGE OF A COFFEE BREAK** are (l to r) Governor Howard Pyle of Arizona, "Roundup" host, Harold T. Reishus, vice-president, International Harvester and John L. McCaffrey, president.



TWO DEMONSTRATIONS IN ONE PANORAMIC VIEW. In the foreground, one group of distributors sees a demonstration of large INTERNATIONAL-HOUGH equipment. In rear, smaller INTERNATIONAL-HOUGH "Payloaders" go through a workout for another group. Actually, ten demonstrations went on simultaneously throughout the day, with busses shuttling between them.



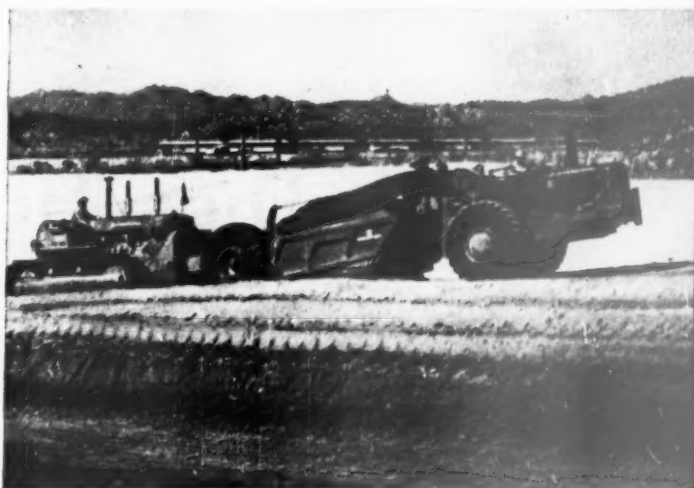
TIMETABLE OF EVENTS at 10 demonstration areas was maintained by radio. Operated by Arizona National Guardsmen, system was directed by INTERNATIONAL Industrial Power's L. J. Lange. On phone, sales manager, I. P. Payne.



ASSISTED by a push-loading INTERNATIONAL TD-24 crawler tractor, an INTERNATIONAL TD-18A with a B-113 scraper is heap-loaded for a group of distributors at a "Roundup" demonstration site. Scraper has 14-yard heaped capacity.

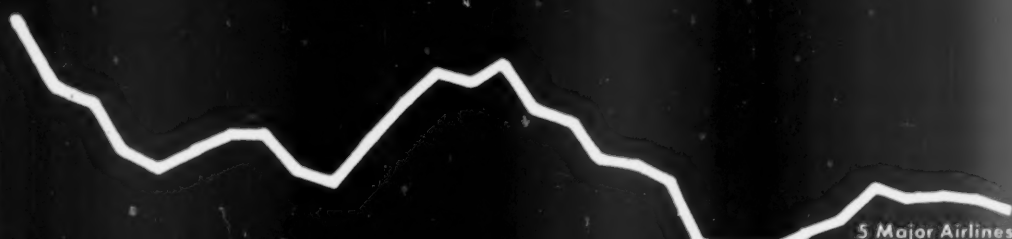


MEET THE NEW "FOUR-IN-ONE"! Shown in operation as a bottom-dumping clamshell is the INTERNATIONAL-DROTT "Four-In-One" Skid Shovel, mounted on an INTERNATIONAL TD-6. Shovel converts to bulldozer, BULLCLAM shovel, Skid Shovel or Clamshell just by moving "shovel-selector" lever.



AN UPHILL LOAD is made by this INTERNATIONAL 2T-55 high-speed earthmover, smaller version of the 2T-75, with a pushing boost from a torque converter TD-24. 2T-55, with 13-yard heaped capacity was loaded out with rough, heavy material on an average of 25 seconds.

AIRLINE SHARES



Rising costs have outpaced revenue gains

In Millions of Dollars

Company	1951	1952	1953	Interim Report 1st Quarter 1954	1954
AMERICAN AIRLINES					
Total Operating Revenues	\$143.0	\$187.3	\$208.3	\$44.5	\$49.9
Net Income	10.5	12.9	13.4	1.9	4**
*Profit Margin	17.1%	13.9%	13.2%	9.9%	2.1%
EASTERN AIRLINES					
Total Operating Revenues	98.3	118.6	144.5	39.7	44.5
Net Income	7.2	8.5	7.9	1.8	1.1
*Profit Margin	21.1%	15.0%	9.6%	N.A.	N.A.
NORTHWEST AIRLINES					
Total Operating Revenues	54.7	61.6	66.1	12.2	11.9
Net Income	1.8	1.8	1.9	(d)2	(d)1.4
*Profit Margin	5.5%	4.7%	3.3%	—	—
Company	1951	1952	1953	Interim Report 1st Quarter 1954	1954
PAN AMERICAN WORLD AIRWAYS					
Total Operating Revenues	\$188.6	\$205.2	\$217.9	N.A.	N.A.
Net Income	6.5	6.8	10.8	N.A.	N.A.
*Profit Margin	6.3%	5.5%	9.1%	N.A.	N.A.
TRANS WORLD AIRLINES					
Total Operating Revenues	142.6	160.7	134.4	39.6	39.5
Net Income	7.7	7.7	5.1	(d)8	(d)3.9
*Profit Margin	10.3%	8.5%	7.9%	N.A.	N.A.
UNITED AIRLINES					
Total Operating Revenues	127.8	159.0	161.7	37.2	37.7
Net Income	8.6	10.7	9.1	.3	(d)1.1
*Profit Margin	13.7%	14.3%	12.8%	2.7%	—

* — Pre-tax Earnings as Percent of Sales ** — Includes \$274,000 Profit from Sale of Equipment (d) — Deficit N.A. — Not Available

BUSINESS WEEK

The Airlines: Horizon Clouded

As the top chart shows, the air transport industry couldn't win a popularity contest in Wall Street. Figures in the lower chart help to explain why. Every major airline for which figures have been announced was worse off in first-quarter 1954 than in the same quarter of 1953.

Gross revenues held up well, even improved in most of the major airlines. However, the sag in net income was more than seasonal. This is due mainly to:

- The continued rise of costs at a

faster rate than revenues. Nearly half of the costs are for labor.

- The higher depreciation write-offs for new planes, the DC-7's and Super-Constellations that are the airlines' pride these days.

Neither of these factors can be expected to shrink. Costs are still going up, and airlines are still equipping themselves with more expensive planes. The only way out that the airlines see is a major overhaul of fares, though they can't agree on how this is to be carried out.

- "Normal" Year—Until the first-quarter returns began trickling out in red ink, the industry had regarded 1954 as "the first really normal postwar year." The lines had absorbed the overexpansion of right after the war (BW—Aug. 30'52,p94), had lived down the fare increases and the bad safety record of 1947, had met the competition of non-scheduled lines by developing aircoach service, and had ridden out a boom in travel connected with the Korea mobilization. Late last year, things were getting back to normal.

"Normal," as the airlines look at it, means "losses, sometimes heavy, in the first quarter; going into the black in the second; making plenty of money in the third, and trying to hang onto it in the fourth."

It doesn't mean that all the big domestic airlines should make a poorer showing, quarter for quarter, than they did last year. (Pan American World Airways, which flies international routes exclusively, is reported to have made \$569,000 profit, compared with a \$65,721 loss a year earlier.)

• **Comparisons**—As the figures in the table show, the best first-quarter record was made by Eastern Air Lines, which wound up March with a \$1.1-million profit. However, that's a decline from the \$1.8-million of the 1953 quarter. The only other big airline in the black was American Airlines, by a small margin of \$446,224—more than half of which came from the sale of capital equipment.

Trans World Airlines, United Air Lines, and Northwest Airlines all fell deeper into the red.

So far, there hasn't been much talk about how the second quarter is going, but what there is doesn't sound very cheering. American Airlines, for example, expects to do far better than in the first quarter but nowhere near the \$4.8-million net it racked up in second-quarter 1953. April earnings were about \$600,000, compared with \$1.4-million a year earlier.

Second-quarter performance is regarded as the real telltale on how far the airlines have drifted from their normal seasonal pattern.

• **Hard to Cut Down**—The airlines have tried to trim costs, especially in administration and maintenance. But wages move upward, if at all, and the size of the labor force can't be cut without sacrificing efficiency and safety.

The lines also talk confidently of how the new planes, offering faster and more comfortable service, will speed the growth of patronage that the industry depends on for profits. Airline executives are unanimous in saying the super-airliners will pay for themselves in new business.

Competitively, no airline can afford to string along with the old equipment. So the cost of new planes comes into the picture as another hard-to-cut item. All the airlines can do is (1) hope to keep their plane seats comfortably filled and (2) hope for some sort of fare increase.

• **Divided on Fares**—Each airline, according to its own traffic pattern, seems to have a different idea about how to get more revenue. As far as the basic rate structure is concerned, the companies aren't going to have a chance

soon to get together on an industry-wide policy. The Civil Aeronautics Board ruled last week that any such collective action would violate the anti-trust laws and the Civil Aeronautics Act.

Furthermore, CAB added, "In a situation where industry earnings appear to be declining primarily because the growth of industry capacity has temporarily exceeded the growth in its traffic, it would appear to be premature to rush into a consideration of basic fare changes as a remedy for the dislocation."

CAB left the door open for domestic lines in the next 45 days "to engage in discussions . . . of all possible methods of increasing revenue other than changes in basic fare and rate levels."

Some lines feel that earnings can be maintained by merely eliminating the 5% discount on round-trip fares and by jacking fares to the next highest dollar. These steps would mean an additional \$8-million a year for American Airlines and \$4.5-million for United Air Lines, the companies say.

• **Aircoach**—On the other hand, some airlines point the finger at aircoach as the culprit in boosting equipment costs and operating costs faster than revenue. The industry is badly split on how much of total passenger capacity ought to be in aircoach service.

TWA, an ardent proponent of aircoach, figures it will have 54% of its passenger total in aircoach by the end of 1954, and 60% to 65% by 1956. Eastern also gives a big play to tourist service at bargain rates. American and United take a dimmer view of this class of business.

Critics of aircoach say the recent spread of 30% in fares between coach and first-class fares is too wide, diverts too many customers into the cheaper fares in cases where they would otherwise be willing to pay full rates. These critics say the spread should be narrowed to 15% by raising coach fares. They point to TWA's \$3.9-million first-quarter loss as an example of the danger of putting too much capacity into low-fare service.

Ralph S. Damon, TWA president, retorts that the first-quarter loss was largely a "book loss" in writing off new planes. "Dollar for dollar," he says, "our highest rate of return per plane-mile is derived from aircoach service. First-class traffic is bound to reach a saturation point in the not too distant future, and new traffic must be generated from among the budget-minded consumers who presently do not travel by air."

• **Load Factor**—Fear that "growth of industry capacity has temporarily exceeded the growth in traffic," as CAB

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Machine**

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**Should You
Machine This One?**



The answer is no, because both pictures are of the same connecting rod! The top picture was taken after the rod was inspected by Magnaflux' methods. The test revealed a serious crack which makes the rod worthless, even though the crack is invisible to the unaided eye (bottom picture).

Think of the waste if such rods are completely machined and the defects found in final inspection or—worse still—in service! With inspection methods by Magnaflux, you can avoid such waste by finding invisible defects in all kinds of products—before you spend expensive labor and machine time. These methods actually tell you what to machine and what to salvage or scrap—at the stage where it costs you least. They can save your production dollars!

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"WHERE" of Lower
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—cites examples—
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MILWAUKEE, WISCONSIN

puts it, is nothing new in the air transport business. The worry is that over-expansion may be chronic, not just temporary. Ever since the war, airlines have been opening new routes and putting bigger new planes into service to meet the competition.

The increase in travel—military and civilian—related to the Korean mobilization boosted the airlines' over-all load factor (percentage of seats that are occupied by paying customers) to 74.1% in 1951. It dropped to 67.7% last year and is expected to run about 65% this year. Most airlines say 65% is about optimum—with a rate much higher than this, the more popular flights leave disgruntled customers at the standby counters.

• **New Planes**—However, the airlines are in a scramble just to hold even in their load factors, with the bigger planes going into service. And the new planes cost a lot more.

The new DC-7, for instance, costs about \$1.7-million, compared with \$1.1-million for the DC-6B when it came out in 1951. American, United, and National are using DC-7's, and Eastern has a dozen on order for 1955 delivery. TWA has ordered 540-million worth of Super-Constellations and other planes for delivery next year, and

Capital Airlines has signed up for 40 Vickers Viscount turboprop planes in Great Britain for around \$45-million. If Boeing's 707 jetliner (BW-May 22 '54,p29) gets into production, the price is expected to run between \$3.5-million and \$4-million.

Thus, the airlines are entering a period of unusually heavy write-offs while the expensive new planes are digested. Some executives are even more worried about the danger that the new planes will be made obsolete by still newer planes before they're paid for. But that's a continuous hazard with airlines.

• **Washington Trouble**—The airlines have additional problems coming from the direction of the Capitol. One is the readjustment that would come from recommendations of the President's Air Coordinating Committee (BW-Jun. 5 '54,p31) to merge unprofitable routes. This would hit mainly the local service and feeder lines that are the only remaining recipients of federal subsidies. The committee's idea is to end the subsidy system.

Congress seems to agree. For the 1954-55 fiscal year, the Administration proposed \$73-million in subsidy money; the House trimmed this to \$40-million, and there is strong sentiment in the Senate to cut it still further.

No Rest for the Taxpayer

What this year's federal tax cuts give him, state and local governments may gobble up sooner or later; their backlog of needs remains but revenues are drying up.

The savings to individuals from the Jan. 1 cut of 10% in federal income tax rates, and to corporations from the ending of the excess profits tax, may look like a windfall right now. But don't count in either case on having that much money to play around with for very long.

The way it looks now, state and local governments are scratching around for ways to boost their revenues—and either directly or indirectly, these lesser political units may in the long run take in the equivalent of the federal tax savings, or even more.

• **Shares**—The nation's tax bill for the fiscal year that closes this month will aggregate around \$93.6-billion. Of this, \$70.6-billion represents Uncle Sam's share, and \$23-billion the state and local take, according to the Tax Foundation. For fiscal 1953, which ended a year ago, the total tax bill of \$96-billion included \$73.6-billion federal, \$22.4-billion state and local.

The \$600-million state and local tax increase in fiscal 1954 over 1953 is actually the smallest in recent years. For the five years 1948-53, states and

localities upped their take an average of \$1.6-billion annually.

But there's likely to be a sharp reversal of 1954's state-local trend.

• **Backlog**—The years of depression in the 1930s, of war production in the 1940s, of expanding population since V-J Day have fastened on the state and local governments a backlog of needed public works that will keep officials scrambling for more funds for at least a decade or two. Even if some of the funds come from borrowing, the taxpayer will foot the bill eventually.

One expert estimates that state and local bodies face spending of \$50-billion for roads, \$27-billion for schools and colleges, \$11-billion for hospitals, \$11-billion for water and sewer works, other billions for miscellaneous needs. Conservatively, the total exceeds \$100-million.

• **Going Up**—Last month—to give a hint of what may be on the way the nation over—a \$305-million public works bill was approved for the District of Columbia. To pay the cost, rates are being raised on practically all existing District taxes—on incomes, sales, real



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States and municipalities can be expected not only to hike the rates on existing levies, but also to seek out new revenue sources.

The need for additional tax dollar sources is obvious from even a quick survey of what's happening to present revenues.

In the past, according to the Tax Foundation, funds from five principal sources kept pace with the mounting needs of states and cities:

- A continuous rise in national and personal income automatically pushed up the revenues from income, sales, and gross receipts taxes.

- Many states drew down on the substantial surpluses accumulated in their general funds at the end of World War II.

- All but two states boosted tax rates or adopted new taxes between 1946 and 1953; many localities sought to improve property tax administration; scores of cities put into effect a diversified list of nonproperty taxes.

- Federal grants increased 3.7 times between 1946 and 1953.

- State and local governments issued bonds and other securities, increasing their indebtedness to \$53-billion last year, compared with \$16-billion in 1946.

- **Drying Up**—Now, however, the situation is changing. Surplus funds on hand have been used up—and in every year from 1948 to 1952 total expenditures of the 48 states together exceeded revenues by \$1-billion to \$1½-billion. In many cases the rates on existing taxes have been hiked as much as the traffic will bear. And the old tax sources frequently aren't as lucrative as they were.

For one thing, the steady rise in both national income and personal incomes has flattened out. That's partly due to the slower business of the past nine months or so, partly to the fact that the leapfrogging of wages and prices that broadened the tax base after the war seems about over.

Some state and local sales and income tax revenues are already running under a year ago. Consumption taxes that are not lagging behind are showing the smallest year to year gains in a long time.

Uncle Sam's help is dwindling, too. The federal budget for the fiscal year beginning July 1 calls for a substantial reduction in grants-in-aid to state and local governments.

- **What's Left**—That leaves two main sources for funds to finance the still heavy backlog: new taxes where the old ones can't be raised any further, and more borrowing.

State and local governments will probably expand their sales of securities sharply to finance public works that can't be postponed. Last year new

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Placing tape near end of package keeps the main portion of the wrapper intact after opening. When no carton is used, as in the case of this paper napkin package, the opened wrap alone serves as a container for the unused contents.

state and municipal bond issues went to market to the tune of \$54-million. Borrowing rates are extremely favorable. The Dow-Jones municipal index of 20 representative 20-year obligations shows an average present yield of 2.49%, compared with over 3% in the early part of 1953.

That would spare for a while some of those savings from federal tax cuts. But interest must be paid on the borrowings—and eventually the principal, too. In the end, it's the taxpayer who will be called on to do it.

Capital Spending By Railroads Fading

Many major railroads have completed or are winding up their dieselization programs.

And, with industrial activity slower than a year ago, freight loadings—and revenues—have been running from 10% to 15% under 1953.

These two factors play a big part in the fact that the nation's railroads in the first nine 1954 months will make capital expenditures of only \$644.3-million, according to the Interstate Commerce Commission. That would be 30.9% below the \$932.1-million spent in the 1953 period.

For the first 1954 quarter, capital spending by the carriers reached \$240.1-million, compared with \$299.7-million a year earlier. That's a decline of only 19.9%.

However, equipment buying was still dominant in the quarter; 69.7% of all capital spending went for locomotives and rolling stock.

"When and if spending programs will be broadened depends on business," a rail spokesman said. "Like any other enterprise, railroads must live within their income. When times are good, they spend freely, but when revenues dip, belt-tightening is in order."

Towns Seek to Build, Then Lease Gas Line

Eight eastern Arkansas municipalities have asked the Arkansas Public Service Commission for permission to build eight natural gas pipelines linking the communities. The gas would be supplied by Midsouth Gas Co., which will lease the pipelines for 20 years. After that Midsouth would have the option to buy the lines.

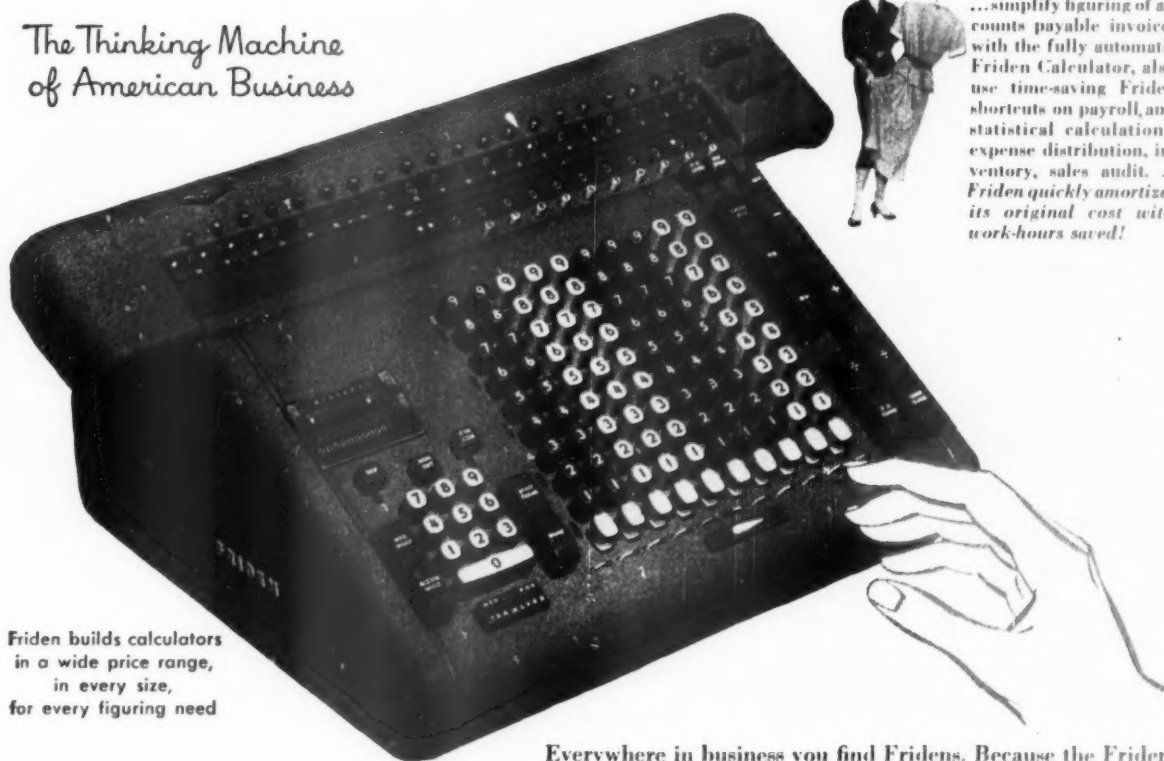
The eight towns would put up a total of \$949,400 for 68.5 mi. of pipe and installations, hooked up with the Midsouth main line at Marion, Ark. The company would have no money sunk in construction of the line.

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NEW ISSUE

June 9, 1954

\$100,000,000
Aluminum Company of America
3% Sinking Fund Debentures Due 1979

Dated June 1, 1954

Due June 1, 1979

Price 100% and accrued interest

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NEW ISSUE

580,235 Shares
American Cyanamid Company
Cumulative Preferred Stock, Series C, 3¾%

Convertible Prior to July 1, 1964

(Par Value \$100 per share)

Transferable Subscription Warrants evidencing rights to subscribe for these shares have been issued by the Company to holders of its Common Stock of record at 3:30 P.M., E.D.S.T., on June 1, 1954, which Warrants expire at 3:30 P.M., E.D.S.T., on June 17, 1954. The Underwriters have agreed, subject to certain conditions, to purchase any unsubscribed shares and, prior to and after the expiration of the Subscription Warrants, may offer shares of the Cumulative Preferred Stock, Series C, 3¾%, at prices and on terms as set forth in the Prospectus.

Subscription Price to Warrant Holders
\$100 per Share

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June 4, 1954.

FINANCE BRIEFS

Kaiser Motors Corp. is still running heavily in the red. Last week president Edgar F. Kaiser announced a first-quarter loss of \$7.5-million after all charges; he blamed it partly on "substantial nonrecurring losses." For all of 1953, the company had a consolidated net loss of \$27-million, despite \$6.2-million profit on the sale of assets.

Allied Chemical & Dye Corp. sold 250,000 shares of Air Reduction Co. common, almost the whole of its long-standing 9% stock holding in Airco. Southern Natural Gas Co. bought the stock for a rumored \$5-million. It was the first substantial sale reported from Allied's investment portfolio (valued at \$51-million as 1953 ended) since some \$10-million worth of U.S. Steel and American Natural Gas common were disposed of two years ago.

Rail freight rates in the U.S. since 1938 have been raised 12 times for a total of about 80%. But Britain's state-owned system has had even bigger boosts—130% in eight jumps—according to ICC.

Large private placements continue. Recent financing in this category includes: Libby, McNeil & Libby with \$15-million of 25-year 3¼% debentures and \$10-million of 5¼% preferred; Greyhound Corp. with \$15-million of 20-year and 21-year notes; Emerson Radio & Phonograph Corp. with \$7.5-million of 4¼% 15-year notes.

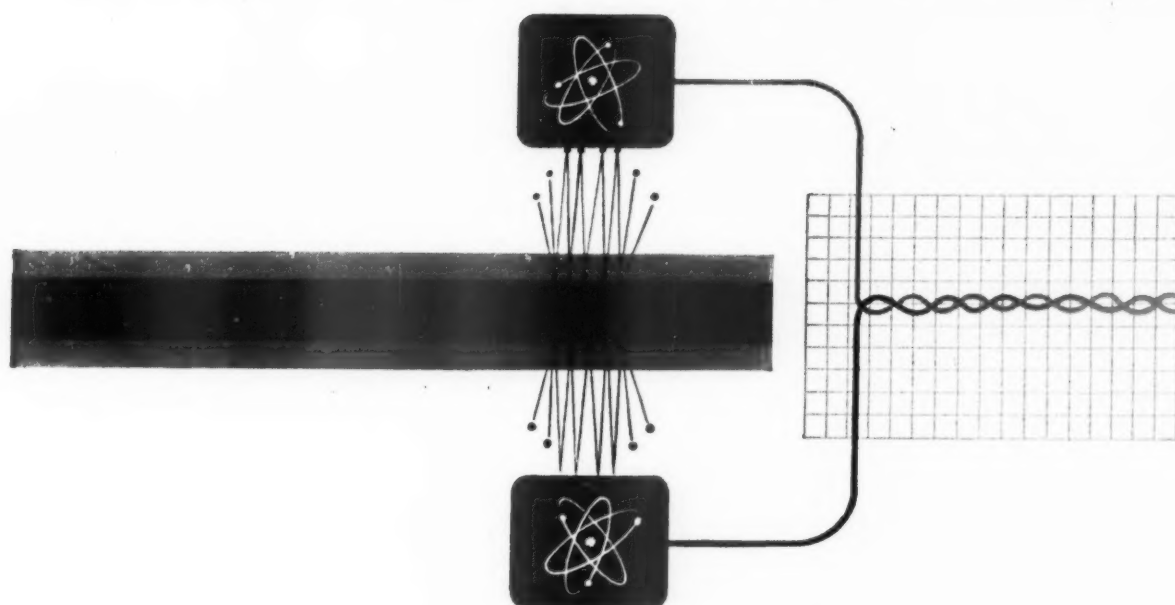
White Motor Co. thinks its share of 1954 registrations of new heavy trucks will be over 19%, compared with 17.6% last year. President Robert F. Black concludes that this year should be at least "as satisfactory as 1953," when earnings per common share were \$6.20, with dividends of \$2.50.

Public sale of \$30-million new bonds and \$11-million preferred is scheduled by Colorado Interstate Gas Co. The proceeds will be used to retire bank loans and finance new construction.

The new management of the Minneapolis & St. Louis Ry. (BW-May 22 '54,p126) is working on plans to merge with one or more neighboring systems, according to Wall Street gossip.

\$25-million in new money: That's what Southern California Edison Co. needs for the rest of 1954, says president Harold Quinton. The money will probably be raised by bonds, but Quinton would be willing to get it via new preferred, if there is a market.

NOW ARMCO MEASURES ZINC COATINGS WITH ATOMIC RADIATION



Here for the first time is an atomic radiation gage for determining the weight and distribution of zinc and other metallic coatings on sheet steel. The device employs radioactive materials and makes measurements by electron bombardment. It then passes its findings in record form along to the machine control station.

A glance at the recording chart tells the operator of the continuous strip coating machine exactly how much zinc is being applied — from edge to edge.

Any irregularity can be spotted immediately and corrected by machine adjustment.

The new gage assures closer quality control of coatings on steel. This means less variation from specified coating weight, no heavy and light areas.

Sheets with controlled coatings will help make better products and build greater customer-satisfaction. Armco technologists have been instrumental in the development of this gage, another contribution to improved steelmaking practice.

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The Older and Sprightlier Market

● The smooth trip of the Social Security bill through Congress reflects new business thinking on the market among the aging.

● The emerging picture of the 65-and-over group is that it's bigger, wealthier, and more inclined to spend than business has thought.

● Businessmen are taking another look at its purchasing power. They are slanting products and advertising toward the retired.

The smooth progress of the Social Security bill through Congress reveals something important about the attitude of business toward the aging—or, as they are politely called, the "mature."

Over the past few years new facts have been bursting into light about the needs, the number, the incomes, and the spending tendencies of this group. The findings have convinced businessmen that they have misjudged and underestimated the vigor and importance of the purchasing power of the 65-and-over market. Today there is a flurry of signs that the business community is hastening to reorient its thinking and approach to everything that bears on the aging population.

• **Political Reflection**—The Social Security bill, which has passed the House and is now slated to go through the Senate without any trouble, will probably be signed by President Eisenhower some time in August. It will add some 10 million people, mainly self-employed, to those now covered by social insurance, and it will increase benefits for another 6 million already covered.

The total package is going to cost more. Costs will not rise immediately so much as in another six years or so, when the rates paid by employers and employees step up. But business is going to have to shell out more. Even so, you hear few screams of anguish about this year's increase.

This attitude is reflected in the words of Fred Lazarus, Jr., president of Federated Dept. Stores, Inc., who told the recent meeting of the National Sales Executives in Chicago:

"There is an additional cost of \$12 for those of us who earn more than \$3,600 a year, and of course employers would be paying a somewhat higher tax; but this expenditure seems to me to be very worthwhile to get the strengthening of purchasing power that comes from the assurance on the part

of these additional 10-million people."

• **It's Big**—One of the key factors behind the growing respect shown by Lazarus for the potency of the old-age market is the simple fact that business has suddenly realized just how big that market is.

As of the spring of 1953, the last time the Bureau of the Census made a nose count, there were 13.3-million people in the country 65 years of age or older. That compares with 12.2-million three years before and 9-million in 1940. In the three years between early 1950 and early 1953, there was a net addition of 1,130,000 people 65 or over to the population, a 9.3% gain. The gain for all ages was 5.6%.

Put another way, since 1940 the gain in 65-and-over population has been better than 40% as against a gain of slightly more than 20% for the total population.

• **Quality Question**—But bigness isn't everything. Businessmen are also changing their answers to some qualitative questions: What kind of market is this really? What will it have to spend? What kind of goods will it want? What will the growth of this segment of the population in proportion to the whole do to the character of the total market?

On the whole, businessmen have not been too happy with the answers they felt forced to give in the past. To them the "mature" market has looked skimpy. They figured that older people have low incomes, that their wants are small.

• **They Have Money**—Now it begins to look as if the old-age market is better heeled than they had figured. True, the new Social Security act itself will not at first add much to the spending power of the retired, who will only be getting an average \$6.50 increase to the average \$50 check they now get each month. Much of this will go for better food and living quar-

ters. But in general, the long-range view is rosier. The benefits keep stepping up over a period of years.

Furthermore, the new bill partly lifts the lid from the earning power of retired people under Social Security. From now on they can earn \$1,000 a year on their own without being penalized. Hitherto, workers under 75 have been permitted to earn no more than \$75 a month.

Another indication of the financial strength of this market is the Brookings Institution study of a few years ago on the ownership of corporate shares. This brought out that people over 60 own 26.8% of the shares held by people of all ages. There are 1,740,000 people of 60 and over holding shares—or were a few years ago.

• **They Spend It**—Furthermore, the argument now goes, older people spend their money.

They have more disposable income in the sense that they have fewer financial commitments as they get older. Their kids are out on their own, the mortgage is paid off, and so forth.

But this doesn't mean they hoard the money thus loosed. Instead, some observers point out, they are a great market for toys and kids' clothes, in their role as doting grandparents. Likewise, they buy a considerable share of refrigerators, washing machines, and TV sets as gifts for struggling young couples.

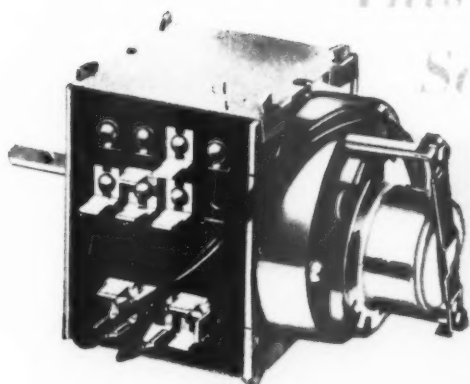
• **Own Households**—On their own behalf they are also spenders. People don't just vegetate as they get older. For one thing, they set up their own housekeeping establishments.

This trend is a major feature of the latest report by the Census Bureau on population characteristics. It notes that for the three years through early 1953 there was notable increase—the figure is 1,287,000—in the formation of what the bureau calls "primary households," which it defines as "household head living alone or with non-relatives only." The gain in this type of household—which the bureau says is formed largely by older people—was very nearly equal to the number formed by married couples. Primary households increased 26.5% as against a 6.9% gain for all households.

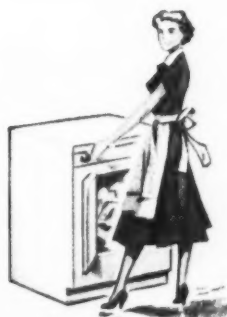
• **New Homes**—Older people want their own homes and they plan to have them. The magazine *Lifetime Living*, which caters to the "mature" market, recently took a poll of some 165,000 subscribers and found 45% planning to buy or build a new house. Average cost: \$12,000. Average rooms: five.

The magazine's readers range in age

*This Mallory Timer Switch
Saves Work for Millions...*



How Many More Will It Serve?



First choice of home appliance manufacturers, the Mallory Interval Timer Switch masterminds the varied operations of automatic washing machines, clothes dryers and dishwashers ... thus eases tiresome chores for millions of housewives.

Now this precision-built Mallory switch is going to work outside the kitchen and laundry.

In one instance it continues to serve the housewife as it controls the newest of beauty-shop hair dryers ... a versatile device that dries, cools and sterilizes air ... puts a better-than-ever finish to that morale-boosting hair-do. In another case, the Mallory timer switch acts as a watchman on an improved sterilizer for doctors' and dentists' instruments.

As a consumer, there's no sure way to tell where you'll find the unique Mallory

switch next working for you ... perhaps as a more flexible and effective control in a home air conditioner.

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Professional materials for amateur gardeners is made possible through Niagara's specialty line of Farm and Garden Brand chemicals. Available at leading garden supply stores.



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Conveniently packaged, ready to apply, protective chemicals help turn fabled gardens into a fabulous reality. Quite contrary to popular belief in "green thumb" magic, successful gardening results from proper care and protection against bugs and blight. The control of garden pests is made easy with scientifically formulated insecticides and fungicides, produced by FMC's Niagara Chemical Division, a leader in the agricultural chemicals field. This is an example of how FMC is putting ideas to work through horticultural chemistry.

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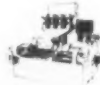
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WESTVACO INDUSTRIAL CHEMICALS

between 45 and 65 mostly, and they are in a relatively high income group. But the point here is that as they get older people plan at least one more move, and this means a housing market—of a new type—and a market for furnishing as well.

This craving for new homes has some interesting sidelights. It has opened up a fertile field for real estate operators in Florida who offer plots plus trailer in what one called "Twin Lakes Trailer-coach Manor."

- **Special Market**—This is the kind of specialized market that is growing up among older people. This separate market also embraces a considerable array of goods from low-caloric food to hearing aids. It's a market that has barely been scratched so far. Here is just a beginning list of products that some manufacturers have been thinking of promoting to the older market:

- "Non-skid" paints that will keep older people from slipping on wet floors.

- Tubs that are easy to get in and out of.

- Kitchen equipment that is easy to handle, won't hurt the users.

- **Advertising Flyer**—Just in the last few months national advertisers have begun to take a first small try at the market. Here are the headlines of some recent ads that illustrate the trend:

"Is a woman ever too old to hold a man's love?" (Jergens All-Purpose Cream).

"A gift of air conditioning on their twenty-fifth anniversary." (Carrier Corp. which used pictures of a ruddy, happy, beaming couple obviously well along in years).

"All our vacation dreams come true in restful South America." (Pan American-Grace Airways, Inc., which likewise used pictures of smiling old people).

- **Wider Impact**—Advertisers finally seem to be taking the advice of Vergil D. Reed of the J. Walter Thompson Co. advertising agency, who says, "Older people are a market for special products, it's true. But besides this, old people use practically everything everybody else uses."

At this point it is possible to glimpse a trend that may affect all advertising, not just the advertisers who have something specific to sell to older people, like health foods or hearing aids.

It is quite possible that with an increasingly "maturing" population, some of the stress on youth that has pre-occupied advertisers for so long will give way to advertising that appeals to a broader spectrum of age groups.

Perhaps the key lies in the median age of the American people. Back in 1900 it was 22.9 years. By 1920 it was 25.3. By 1930 it was 26.5. Now it is 30.2—and the median American is still growing up.



POINT OF ORDER!

Mr. Sales Manager

Sales boom—orders mushroom—you can move out overstock, when you motivate salesmen with a **Belnap & Thompson Incentive Campaign**. The payoff is **POINTS FOR ORDERS**.

Learn how you can use
Prize Points to increase
orders. Send for your free copy
of the "Seven Steps to Success"
—a formula for a successful
Sales Campaign.



Belnap & Thompson, Inc.

INCENTIVE CENTER • PALMER HOUSE • CHICAGO 3, ILLINOIS
STate 2-6181

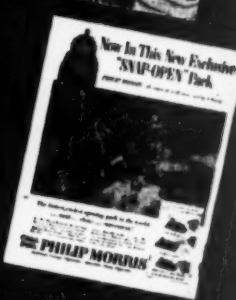
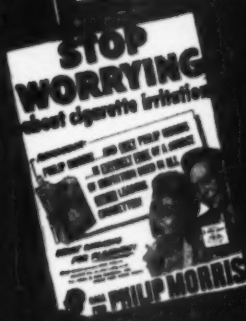
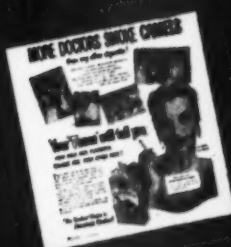
Complete incentive service: million dollar stock of nationally advertised prizes; world's largest travel award service; Canadian prize program facilities; custom campaigns created and produced; Dealer and consumer premium programs.

Cigarette Ads Change Their Pitch

Last year's health

to

This year's pleasure



Strike—pulled a switch, in a way the most remarkable switch of all. Luckies have gone back to their venerable slogan, "It's toasted"—back to the good old, dreamy days before there were any snakes in the smoker's garden.

• **Behind the Switch**—Estimated figures released last week by the Dept. of Agriculture go far to account for the change. Apparent cigarette consumption in the year ending June 30 will be down roughly 4% from the preceding year. This means some nine packs a year less per smoker.

Cigarette people will not concede that the cancer scare (BW—Dec. 5 '53, p58) was enough to explain the drop. The switch to king-size cigarettes—now accounting for about 26% of total output against 18% last year—they say, means that a lot of people may well be smoking fewer, but longer smokes. The kings, of course, like the filter tips, played extra hard on the extra health protection they afforded.

Filter-tips, too, have been making fine headway, though so far they account for a much smaller share of the total market than the king sizes.

• **Brand by Brand**—Yet the recent shift in advertising is so nearly unanimous that it amounts to a confession of tactical error. The industry is at long last taking to heart the warnings of such experts as Dr. Ernest Dichter that health claims will boomerang when they can't surely be validated. They may boost an individual brand's share of the market, but what good is that if the whole market dwindles?

A brand-by-brand rundown shows what has happened:

Camel, a leader in the "whitecoat" ad field, a year ago was plumping the theme, "More doctors smoke Camels than any other cigarette." Now it says, more moderately, "Camels agree with more people."

Philip Morris a year ago was headlining "the cigarette that takes the fear out of smoking." Now it's writing lyrics about "vintage tobacco for pleasure."

Pall Mall, leader of the kings, has pulled back from the advice to "guard against throat scratch," has substituted "the pleasure of smoother smoking."

Even the filter-tip leader, Viceroy, has changed its tune from "double-barrelled protection" to "double your smoking pleasure."

For reasons best known to itself, Chesterfield has refused to give up the health talk though it, too, finds pleasant things to say in current ads. Old Gold, whose "Not a cough in a carload" was one of the early, if light-hearted, versions of health advertising, hasn't used the health theme to any appreciable extent for the last four or five years.

Will the new appeal recover the lost ground? Maybe, says one expert—if it isn't too late.

Admen Soft-Pedal Health

The Federal Trade Commission couldn't do it. The tobacco growers couldn't do it. Warnings from marketing experts went unheeded. But economics did the trick. Faced with dropping sales, cigarette manufacturers have pulled an abrupt about-face in advertising tactics (pictures, above).

A couple of years ago, most of them were pulling out all the stops to ter-

rorize their customers into buying their particular brand. Today, no word of fear, no talk of throat scratch—just comfortable, reassuring phrases about how good a cigarette tastes. Smoking, it seems, is no longer a health cure; it's pure pleasure.

Even the one big brand that has consistently steered clear of scare tactics—American Tobacco Co.'s Lucky



CORRUGATED containers bring fruit to market safer, cleaner, and at less cost

There's a quiet revolution going on today in the Florida and California groves where oranges are shipped. At the center of it is the ordinary corrugated shipping container.

At first only a few—now an army of alert shippers have discovered that by switching from old-style crates to corrugated containers, they can save approximately 20% on the first cost alone. That's a worthwhile saving in a narrow-profit-margin business like oranges. Then they discovered other savings: elimination of individual tis-

sue wrappers, better protection against bruise spoilage.

Storeowners like corrugated boxes better too. Only half as heavy as crates, they're easier to handle, can be lifted by one man—or even a woman. Boxes can be opened without tools—or the danger of splinters. And they lend themselves well to attractive store displays.

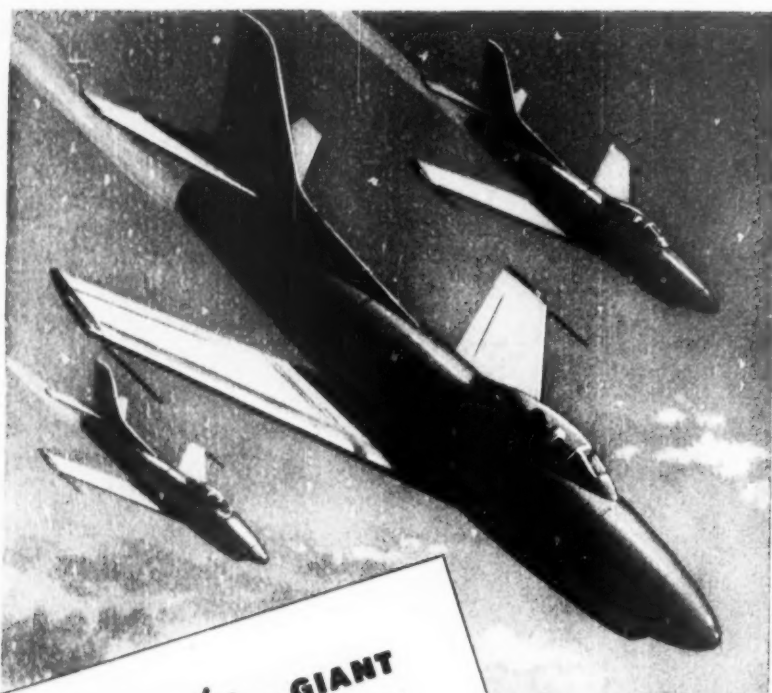
The advantages of corrugated board are of course applicable to practically

every product that's shipped—from fruit and produce to heavy machinery. A candid talk with your nearby manufacturer of corrugated shipping containers will show you just how much you can benefit.

America's leading manufacturers of corrugated shipping containers have depended on Langston corrugating machines and equipment since 1902. Samuel M. Langston Co., Camden, N. J.

LANGSTON

Paper-working
machinery



Canada...GIANT in NEW INDUSTRY

Almost 2,300 new large and medium-sized manufacturing concerns have started to operate in Canada since 1945. Jet aircraft, chemicals, iron and steel, oil—new companies are beginning, old companies are expanding in the land to the North.

B of M ...Your Gateway to CANADA...

If your next move is north, you will find valuable assistance at the Bank of Montreal. With a coast-to-coast network of 600 branches, this \$2-billion bank can provide you with first-hand information on the availability of raw materials, on taxation and finance. Address our Business Development Department, Head Office, Montreal, or our nearest U. S. office.



BANK OF MONTREAL

Canada's First Bank Coast-to-Coast

New York: 64 Wall Street

San Francisco: 333 California Street

Chicago: Special Representative's Office: 141 West Jackson Blvd.

Head Office: Montreal

600 BRANCHES ACROSS CANADA...RESOURCES EXCEED \$2,300,000,000

Candy Troubles

Industry looks for ways to buck soaring cocoa bean prices and meet demand for lab controls on quality.

Candy people at the annual meeting of the National Confectioners Assn. in Chicago last week had two things on their minds: how to cope with the soaring price of cocoa beans, and how to adjust to the growing trend toward scientific quality controls in the making of candy.

• **Threat**—Because the price of cocoa beans hits the industry in its pocket-book, this was the most absorbing subject. Since November, the beans have risen from 40¢ a lb. to 65¢ a lb.—thanks to increased European demand and a short crop of African beans (BW-Apr. 17'54,p130). The problem is how to preserve the 5¢ candy bar in the face of such a climb.

The answer, the industry felt, pointed two ways: It could wean itself from dependence on the cocoa bean by a wider use of synthetic chocolate flavorings—much as the carpet industry has weaned itself from dependence on wool by turning to synthetics. Or it could expand the cocoa bean crop in Latin America.

• **Trend**—The quality control project, though perhaps less immediate, could revolutionize much of the candy industry. The larger companies, of course, have used laboratory controls for years. But for the smaller concerns that make up over 80% of the industry, candy making is still largely an "art." Few have laboratories for testing their raw materials, standardizing formulas, keeping uniform processing conditions for a uniform product.

What's giving quality control a boost now is the fact that a year ago Sears, Roebuck & Co. set out to apply the same kind of specification buying to its candy that it uses for its other merchandise. Sears developed minimum quality standards in its own laboratories, then tried to persuade its suppliers to use them.

Sears's move spurred the association, in cooperation with the Scientific Apparatus Makers Assn., to work out recommendations for the minimum laboratory equipment needed. Together the associations will help candy makers set up such laboratories, find the chemists to operate them. Cost should come to under \$5,000 per company, they figure.

Last month Sears told its suppliers that within three years it expects to specify quality controls just as it now specifies ingredient percentages.



it eats up waste!

Food waste and waste motion . . . a modern kitchen disposer eliminates both quickly, permanently.

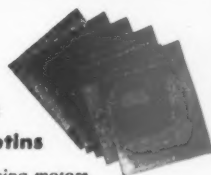
Today's homemaker never leaves her kitchen sink as she takes care of what used to be an unpleasant chore. *In Many of America's best-known food waste disposers an Emerson-Electric motor does this work for her.*

Emerson-Electric specializes in building motors for products that eliminate waste motion, that perform efficiently for the home, on the farm, in business and industry. It has done so for 64 years, and offers standard motors in ratings from 1/20 to 5 h.p., and hermetic motors 1/8 to 20 h.p. Your inquiry is invited.

THE EMERSON ELECTRIC MFG. CO.
St. Louis 21, Mo.



Write for these Emerson-Electric Motor Data Bulletins



Manufacturers requiring motors 1/20 to 5 h.p. can profitably use these reference guides. Specifications, construction and performance data are included for these motors:

- | | |
|--|---|
| <input type="checkbox"/> M-424-A Capacitor-Start | <input type="checkbox"/> M-424-E Oil-Burner |
| <input type="checkbox"/> M-424-B Split-Phase | <input type="checkbox"/> M-424-F Jet Pump |
| <input type="checkbox"/> M-424-C Integral | <input type="checkbox"/> M-424-G Blower |
| <input type="checkbox"/> M-424-D Fan-Duty | |

EMERSON
MOTORS • FANS



ELECTRIC
APPLIANCES



"A salute to those
who made it possible" *



How to save money coming and going

Count the doors in your building. Like to save up to \$100 apiece on each door you put in your next building? Compare the installed cost of Fenestra* Hollow Metal Door-Frame-Hardware Units with the cost of other hollow metal doors!

Here are three sound reasons why Fenestra Door Units can bring you such important savings:

1. *They cost less to buy* because you get production line economy—not custom job costs. They are mass produced on special jigs that avoid expensive time and labor.

2. *They come to your job complete* with pre-fitted frame, door and hardware specifically made for each other. You save time because there's no need for planning, ordering and assembling special elements.

3. *You save on installation costs* because these complete units need no cutting, no fitting, no mortising or tapping. Each door is installed and in use in minutes.

And you save year after year on maintenance because Fenestra Hollow Metal Doors can't warp, swell, stick or splinter. They always open easily . . . smoothly. They close quietly because inside surfaces are covered with sound-deadening material.

For strong, solid quality at low cost, check on Fenestra Doors. There's a door for every purpose in the Fenestra Line: Entrance Doors, Flush or Regular Interior Doors with glass or metal panels. Doors with the Underwriters' B Label. For pictures and details, write the Detroit Steel Products Company, Department BW-6, 3425 Griffin St., Detroit 11, Mich.

* Your need for lower building costs encouraged us to develop a quality door unit that would save initial cost and installation cost—Fenestra Hollow Metal Door-Frame-Hardware Units . . . a great advancement in building products.

Fenestra
DOOR • FRAME •
HARDWARE UNITS

Not Hot Enough for Them

Air conditioners, a breed apart, are hoping for a long roasting summer to push their sales well over last year's record of more-than-a-million-unit shipments.

In the room air-conditioning business, the weather is the boss. So says a St. Louis distributor, and most people in the industry say amen. Up till last week, the boss was a mean one. In fact, the weather has been so mean—which is to say cool—that some distributors and dealers doubt they'll be able to make their earlier goals.

Last weekend, the worm had turned in one city, at least. St. Louis reported a blistering weekend—and sales came through with a bang. But elsewhere the feeling was that a heat blitz now might still be too late. "The best we'll be able to do will be to equal last year's sales," one distributor said.

• **Goals**—That doesn't sound too disastrous, since 1953 was a banner year, with manufacturers' shipments estimated at over 1-million units, by Electrical Merchandising, a McGraw-Hill publication. A check in some of the big markets over the nation uncovers the fact that most distributors and quite a few dealers report sales ahead of last year's. In New York City, for instance, where the groans are loudest, Consolidated Edison reports that up to June 8, distributors had sold 70,880 units, against only 61,000 units by July 10 of last year.

The catch is this: Sales in 1953 were more than double sales in 1952. The industry had looked forward confidently to another tremendous boost this year. So far, the big boom hasn't materialized. City after city reports sales good, or fair—but not up to expectations. And in every case, the accusing finger points to the cool, late summer.

• **High Inventories**—The pipelines are full. The late heat wave last summer encouraged some manufacturers to continue production beyond the usual season last year. Sales at retail probably ran between 800,000 and 900,000 units—leaving a sizable inventory for 1954.

During the early months of this year, the manufacturers pulled out all the stops. Air-Conditioning Refrigeration Institute estimates that in the first quarter manufacturers' shipments were 95% ahead of the same 1953 period. Sales so far just have not kept up with this furious pace. To complicate the picture, a lot more brands are on the market this year—close to 100, against some 50-odd a year ago.

As always, this means price cutting. A Dallas distributor says, "I can buy a unit cheaper at a retail store than I can get it from my own supplier." A New

York department store reports there isn't a brand on which it hasn't reduced prices. Says this store, "Unitwise, our sales will probably be as good as last year's. But our margins may be worse."

Even the discounters don't like the prospect of getting only a \$10 to \$25 profit. In Birmingham, a disconsolate dealer, who has made a killing on big discounts, says, "I'm just trying to get out of the business. When my stock is gone, I don't want to ever see another room air conditioner."

• **Year-Round Market**—Manufacturers remain firmly and aggressively cheerful. Some, like Mitchell Mfg. Co., have lowered their sights—from a 100% increase over last year to 50%. But the big-name brands, the producers feel, will do all right.

Though even manufacturers admit to lagging sales as compared with output, they have other sources of comfort. Thanks to the high pace of housing, year-round residential air conditioning is booming; this is a field where weather isn't master. General Electric Co. reports the best first quarter ever. Carrier Corp. reports a 50% increase in the year-round units. Sears, Roebuck & Co., which started marketing "add-on" cooling units for existing warm-air furnaces last year, reports this year's sales are "entirely satisfactory."

• **Incubator**—At least one room unit manufacturer, Fedders-Quigan Corp., finds nothing to lament. "Sure, summer is late this year," says Salvatore Giordano, president. "That doesn't mean we aren't going to sell a lot of air conditioners." This company is talking about industry sales of 1.5-million units, maybe even 1.7-million. Worthington Corp., more conservatively, talks of 1.5-million units "before 1958."

Giordano bases his optimism on the fact that exposure to air conditioning automatically breeds more sales. When the hot weather comes, he feels, the laggards will come on the run, as they did last year. Some companies—Carrier is one—plan a late-season promotion to stir up the late buyers.

• **The Pattern**—The industry notes that the market pattern is shaping up in two distinct lines. There are the early-bird buyers—and these, says Bernard Mitchell of Mitchell Mfg., have increased 50% this year. The second are the wait-and-see school. This is the group to whom the weather makes all the difference between buying and not buying.



"This Needle Bearing can carry a terrific load"

For its size and weight, the Torrington DC Needle Bearing has a greater rated radial load capacity than *any* other type of anti-friction bearing.

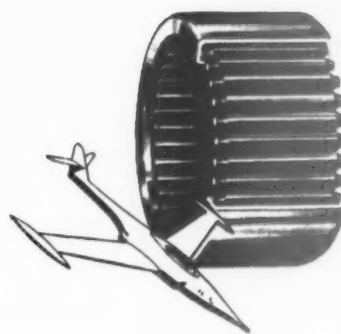
The Needle Bearing is only slightly larger than a plain bearing, yet it delivers efficient anti-friction performance with a minimum of maintenance attention. Its drawn and hardened outer shell, when pressed into a recommended housing bore, serves as the outer race. A full complement of small diameter rollers gives many lines of contact to distribute the load.

Your product can gain many advantages from the Needle Bearing's

design and performance. Housings, mountings and other related parts can be made lighter and smaller. Lubrication is needed less frequently since the turned-in lips of the bearing keep lubricants in, dirt out. And you get high capacity anti-friction performance for little more than the price of a plain bearing.

Our Engineering Department will be glad to lend a hand in design analysis and bearing selection.

THE TORRINGTON COMPANY
Torrington, Conn. • South Bend 21, Ind.



District Offices and Distributors in Principal Cities of United States and Canada

TORRINGTON NEEDLE BEARINGS

Needle • Spherical Roller • Tapered Roller • Cylindrical Roller • Ball • Needle Rollers

Torrington Needle Bearings serve the aircraft industry in many important applications where weight and space savings are vital. On both military and civil aircraft, Needle Bearings give high-capacity anti-friction performance at high speeds, high altitudes and over a wide range of temperatures.

For cool,
refreshing
drinks at
low cost...

**GET
KELVINATOR!**



**The name that you know means
better water coolers!**

For the best water cooler for your needs, see "Kelvinator" under Water Coolers or Electric Appliances in the yellow pages of your phone book. Ask about our National User Plan for immediate service and delivery coast-to-coast. Or write Kelvinator Water Coolers, 104 Lucas Street, Columbus, Ohio.

Kelvinator

Oldest Maker of
Electrical Refrigeration for The Home

Law Blesses Paint Roller

Michigan court rejects union claim that device is hazardous . . . On-the-cuff deal helps farmers buy Quonset huts for one-quarter cash.

A Michigan state supreme court decision last week promises to give painting contractors a chance to win back some of the ground they have lost to the do-it-yourself home painting trend over the past several years.

Back of the court case is the paint roller—so convenient that it lures the home handyman (BW—Jan. 10 '53, p. 82). According to trade estimates, do-it-yourself now accounts for 80% of all indoor household painting.

Because the average indoor paint job can be done so much quicker with a roller, painting contractors say they could cut their labor time costs anywhere from 20%-40%, and drop their charges to the customer by the same amount. But labor unions have vigorously fought the rollers—charging that they endanger painters' health and safety. In nearly every section of the country, the unions have banned the use of rollers in their contracts with paint jobbers.

That is what the Detroit fight was all about. After a tangled series of negotiations finally collapsed, a group of local contractors challenged the union ban, and carried its fight to the high court.

• **Decision**—Last week, the court ruled unanimously that the rollers do not endanger workers' health or safety, and held that the union contract ban was an "unlawful labor device." Because the case rested on the basic issues involved, it is considered a key one that may have wide effect.

In addition to paving the way for more contract business, the decision:

• Opens up a relatively small but important market for the growing paint roller field.

• Sets a precedent for what management considers its "right to select new and improved methods and equipment," as long as there's no safety factor involved.

Quonset on the Cuff

Most manufacturers are on the lookout for ways to help their dealers financially. So far, the most popular ways have been (1) installment consumer credit deals, or (2) direct financing to retailers so that they can expand their inventories (BW—May 8 '54, p. 11). This week, a new twist to the consumer credit plan appeared in

the Middle West, directed at bolstering sales to farmers.

This latest plan was set up by Stran-Steel Div. of Great Lakes Steel Corp. Stran-Steel, which developed and manufactured the Quonset hut that spread so far during World War II, now wants to put it on the American farm.

A steel Quonset building costs up to \$16,000. But it is hard to get credit for these structures, because banks usually demand a real estate mortgage, and even then are inclined to be chary. So Stran-Steel entered into an agreement with LPG Credit Corp. of Cleveland, which for the past five years has been financing farmers' purchases of liquefied petroleum gas and appliances in 36 states.

• **Details**—The deal works like this: Stran-Steel promotes the idea through its sales force, then turns over the names of prospective installment buyers to LPG. The credit company screens out the bad risks, taking into consideration any of Stran-Steel's recommendations. Once O.K.'d, the farmer puts up 25% of the complete cost of the building, and LPG takes the farmer's five-year note for the balance—payable in monthly, quarterly, semiannual, or annual installments. The loan ceiling is \$10,000—although the average transaction is expected to run closer to \$5,000.

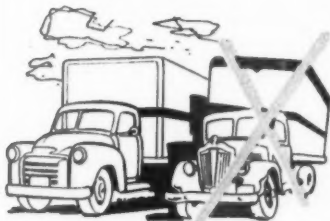
The plan started this week in an eight-state test area: Iowa, Nebraska, South Dakota, Kansas, Tennessee, Arkansas, Mississippi, and Missouri. LPG and Stran-Steel may branch out into other territories, depending on the results of sales in this area. But even before its deal with LPG, Stran-Steel had sold a number of steel buildings—both the Quonset (arched) and flat-topped types—to farmers.

• **Update**—The other type of credit plan—direct dealer inventory financing—cropped up again in the news last week, when deals of this kind were announced by Radio Corp. of America and by McKesson & Robbins, Inc., drug wholesalers. The RCA plan will be handled through the Pennsylvania Co. for Banking & Trusts; the McKesson & Robbins deal through C.I.T. Financial Corp. Both plans are aimed at helping retail dealer outlets modernize their stores and boost stocks. Low interest rates will be charged, and long-term installments provided.

Hertz gives you all these benefits of truck ownership... but none of its "headaches"!



1. No capital investment—Hertz Truck Lease Service supplies all the trucks you need. Releases your capital for other company finance needs.



2. Your present trucks purchased by Hertz—Hertz will buy them at mutually agreed prices, and keep them in service; or, if worn out, will replace with new ones.



3. Hertz services all trucks—Hertz washes, garages, repairs, maintains all trucks in top condition. Furnishes anti-freeze, tires, chains, etc.



4. Trucks engineered to your specifications—Hertz supplies the exactly right trucks for your precise needs. Our truck engineers are at your service.



5. All gasoline, oil, etc., supplied by Hertz—You furnish one thing only—a driver. Hertz takes care of everything else.



6. Insurance protection provided to suit you. Hertz will gladly place Public Liability and Property Damage insurance through your own broker or agent, if you prefer.



7. Extra trucks when you need them—In case of peak periods or rush loads, Hertz supplies extra trucks for such periods.



8. Easier bookkeeping for you—Instead of many bookkeeping items you have only the one bill sent by Hertz.

LEASE YOUR TRUCKS
from **HERTZ**
NEW TRUCKS...EVERYTHING
FURNISHED BUT THE DRIVER



9. Good-looking equipment adds prestige to your company—Your trucks always look attractive. Never dirty or run-down. It's good advertising.



Hertz Truck Lease Service is most flexible. You may use all or any part of the above benefits according to your needs. On the other hand, if you prefer others which are not shown, Hertz will provide them too.

Hertz serves almost every type of business! Among Hertz customers are manufacturers, wholesalers, distributors, retailers... restaurants, laundries, cleaners and dyers, department stores, grocers, specialty shops, etc.

Hertz is the world's largest truck and passenger car rental organization, with a 30-year record of customer satisfaction. You, too, will find it pays to lease or rent trucks from Hertz.

For complete information call your local Hertz station or write or phone Hertz Truck-Rental System, Dept. G64, 218 South Wabash Avenue, Chicago 4, Illinois; phone WEBster 9-5165. No obligation, of course.

Look in your telephone directory under "H" for your nearest Hertz station. **HERTZ Truck-Rental SYSTEM**

LOCATE YOUR PLANT near America's Most Modern Port LONG BEACH, California

Labor-Saving Facilities to Speed Shipping

The Port of Long Beach is one of the many great advantages offered to shippers and industries in the Long Beach area. Here labor-saving installations speed cargo movement.

Typical of the many fine facilities is the bulk loading conveyor which will load and trim bulk cargoes at a rate of better than 500 tons per hour. Used in conjunction with an electric vibrator car shake-out, the loader makes quick work of cargoes such as iron ore, coke, coal, potash, sulphur, salt, gravel and cement.

The hopper bins accommodate two carloads at a time; the wharf handles 80 cars, and approaches provide for 150 additional cars—all making for smooth, continuous operation.

Plenty of Skilled Labor to Serve Industry

To operate such Harbor facilities and to serve all industry there is a large reservoir of skilled and technical workers who own homes here.

Thousands of them came here during the war for defense jobs. They liked Long Beach so well they stayed to work in other growing industries. Many others are moving here daily.

Probably no other area offers such a concentration of desirable labor. And they'll be glad to work for you in Long Beach because, although they live here, many of them now work far from home.

Write for free industrial brochure describing the 12 other reasons for locating your plant in the Long Beach area. This invitation is extended by the City of Long Beach and its Board of Harbor Commissioners. Ask for complete details—in confidence, if you like.

CHAMBER OF COMMERCE • DEPARTMENT OF INDUSTRY

200 East Ocean Boulevard, Long Beach 2, California

MARKETING BRIEFS

The tobacco industry has found the man to head up its new Tobacco Industry Research Committee—the organization formed to get at the root of the cancer-tobacco question (BW—Jan. 9 '54, p31). The new head is Dr. Clarence Cook Little, director of the Roscoe B. Jackson Memorial Laboratory at Bar Harbor, Me. Dr. Little is a former president of the American Assn. for Cancer Research and also a former member of the National Advisory Cancer Council.

Nonsigner "fair trade" won a victory in Delaware's state supreme court last week. The court unanimously upheld the constitutionality of previous court decisions which stated that state law provisions bind retailers to resale price maintenance, regardless of whether or not the retailers have signed fair trade contracts.

TV notes: Crosley's new Super V television set (BW—May 1 '54, p54) comes with a 21-in. screen as well as the 17-in. model. The new model will retail at a suggested list price of about \$169. . . . Admiral has a new "giant size" 21-in. TV model to replace its 24-in. screen. The new television set uses a printed circuit and is supposed to give a much bigger picture. . . . Both Admiral and Capehart-Farnsworth have cut their television set prices \$30 to \$275; Capehart has also cut its prices to dealers.

Clapp's Baby Food, recently purchased by Duffy-Mott Co. from American Home Products, has put into effect a new pricing policy to bring retail prices 10% below competing brands. At the same time, the dealer gets a better break on markup. Duffy-Mott does this by cutting out what it calls "unnecessary high-cost practices of the industry—coupons, deals, doctors' contacts, and the like."

Gasoline price cuts by Standard Oil Co. (Ohio) brought a protest from Cleveland dealers that Ohio was trying to put the independents out of business. Ohio's answer to the charge was to cut prices again, because of "a current oversupply of gasoline in relation to demand."

A&P coffee prices—on its own brands—have followed the upward climb of other branded coffees. Price rises range from 2¢ a lb. for Bokar to 6¢ a lb. for Eight-O-Clock.

Does a machine ever think like a man?

You bet! Many business machines can out-calculate a normal, quick-thinking man. It's a good thing they do, or business would never get its bookkeeping done.

These machines are collections of small machined steel parts, working smoothly under cover of sheet steel housings.

They are marvels of accuracy that sometimes actually seem to think.

And many of them are made of J&L cold finished steels and J&L sheet and strip steel.



**J&L
STEEL**

James & Laughlin
STEEL CORPORATION - Pittsburgh

Look to J&L for the steels that work for modern industry

TRANSPORTATION

How They Plan to Bail Out the Long

The Long Island RR will do this:

In the next two years it will spend \$24 million for 184 new air-conditioned cars.

Over the next 12 years it will also spend \$24 million for modernization and improvement of existing cars and facilities.

To make this possible:

The Long Island itself will do this:

(1) It will borrow \$18 million from banks over the next two years, to be repaid in 12 years.

(2) It will borrow \$55 million from the Pennsylvania RR., also repayable within 12 years.

The Pennsylvania RR. will do this:

The parent company will waive for 12 years all interest, dividend, and principal payments on its present investment, estimated at \$120-million book value (but interest on bonds and other debt will continue to accrue).

New Try to Push Commuter Line

The life of a commuter is hard everywhere. But nowhere is it harder than on Long Island. The public transportation that's available to most residents of Nassau and Suffolk Counties who work in New York City is the Long Island Rail Road. And for many, many years, while the population of these two "bedroom" counties has been zooming, the Long Island's facilities and service have been getting worse and worse, while its fares have been going higher and higher.

Many plans have been suggested to lift the Long Island out of its decline. Some of them have been tried. Nothing has worked. But last week, residents of Long Island took new hope when the New York State Legislature, in a one-day special session, passed a series of bills sponsored by Gov. Thomas E. Dewey that appear to give the bankrupt railroad a fighting chance (see tabulation above) to put itself back on its feet again.

• **Different**—The Long Island's troubles stem, basically, from the fact that it's a completely atypical railroad. For every dollar that the U.S. railroad industry as a whole takes in from passengers, it receives \$10.63 for carrying freight. For every dollar that the Long Island RR gets from passengers, it takes in only 37¢ from freight.

Freight is by far the most profitable part of any railroad's business. Most roads consider themselves fortunate if they manage merely to break even on passenger business. So the reason railroads as a group make money is that some seven-eighths of their gross comes from freight. And the basic reason the

Long Island loses money is that some two-thirds of its gross comes from passengers. Even worse, most of its passengers are commuters—and commuter business is always the least lucrative slice of any railroad's passenger business.

• **Losing Customers**—The Long Island used to make money. In fact, it showed black ink all through the Depression. But it started losing money in 1935. Only three of the 19 years since have shown profits. There are several reasons for the decline:

• The road's geographical location is very bad from a freight standpoint. It does not connect any large centers of population; it does not form a section of any through route. It's really nothing more than a spur line, connected at one end only with the Pennsylvania RR and the New Haven.

• Because it's essentially a short-haul route (the island is only 118 miles long from end to end), the road's freight business has been badly hurt by competition from trucks.

• As roads and automobiles have improved, more and more passengers have quit the Long Island in favor of their own cars.

• Over the years, New York City has extended its subway system farther and farther into the Long Island's territory.

• **Bad to Worse**—Since 1900 the Pennsylvania RR has owned all, or substantially all, of the stock of the 120-year-old Long Island. It has not proved to be a good investment. Through most of those 50-odd years, the Long Island's credit has been so poor that the Pennsy has had either to guarantee its bonds

or to lend it money outright whenever it needed additional funds for improvements.

When two issues of bonds, totaling nearly \$40-million, matured in 1949, there were, of course, no funds to redeem them. So the Pennsylvania, under its guarantee, paid them off. But that was enough for the Pennsy; it was tired of throwing good money after bad. So it threw the Long Island into receivership under Section 77 of the federal Bankruptcy Law.

From that point on, things went from bad to worse. The road was kept running, according to the Long Island Transit Authority, "by nonpayment of taxes, undermaintenance, and a whitewashing down of service." Fares were boosted, but the increases were swallowed up in what seemed a bottomless gulf of deficits.

• **Crisis Point**—The rundown condition of the road finally took its toll. In February, 1950, one jammed commuter train rammed another near Rockville Centre, killing 32. In November, a similar accident near Richmond Hill killed 79.

At this point, the state decided to intervene. After finding that the "overcrowded and inadequate" facilities were "a continuing menace to the life, health, and safety" of Long Island's residents, the legislature set up a Long Island Transit Authority. Its job: "... to bring about a fair and equitable reorganization ... which will assure the operation of the railroad in a safe and adequate manner."

• **Battle of Plans**—In November, 1951, the Pennsylvania filed a reorganization

Island Rail Road

The state, city, and counties will do this:

- (1) New York State will waive all taxes for nine years.
- (2) New York City, and Nassau and Suffolk Counties, will waive non-real-estate taxes for nine years, accept sharply reduced real-estate taxes.

The commuters will do this:

- (1) Pay 20% higher fares immediately.
- (2) Pay over the next 12 years fares high enough to cover all operating costs, plus cost of improvements. Increases will be subject to immediate review by state Public Service Commission.

BUSINESS WEEK

Off Rocks

plan that would, among other things, have given the Long Island the power to adjust fares and curtail service without supervision under specified circumstances, and which would have relieved it from state and local taxes unless earnings topped specified levels.

The authority objected to this plan and, in August, 1942, filed its own. Under it, the authority itself was to take over and operate the road. The Pennsy's stock was to be declared worthless, and its \$55-million face value of the Long Island's bonds and other debt was to be settled for \$20-million of new bonds. Some \$15-million of back taxes owed to the state, the city, and Nassau and Suffolk Counties was to be funded over 20 years at 3%. About \$84-million was to be realized from sale to the city, for use as part of the subway system, of the road's Rockaway branch; this was to be spent on improvements.

But about a year later, when the Rockaway branch sale went through, the trustee in bankruptcy decided to use the proceeds to settle back taxes instead. The authority withdrew its reorganization plan, announcing that it could not proceed unless it could see funds available to start a rebuilding program. It knew it could not find any private investor to take the road off its hands and invest the needed sums—it had already tried. It knew it couldn't borrow enough to take over the road itself and rehabilitate it—it had tried that, too.

• **Agreement**—So the authority set about trying to make a satisfactory arrangement with the Pennsylvania. And

on this past May 26, with the Pennsylvania's full agreement, it submitted a new plan to Gov. Dewey. Within two weeks, the governor had called a special session of the legislature, which passed the necessary laws.

• **New Cars**—The main points in the plan are shown above. As soon as it becomes effective, the Long Island will buy \$12-million worth of new cars. It will pay for them with a \$3-million loan from the Pennsy, plus a \$9-million loan, on which it already has a commitment, from banks. After one year, it will buy another \$12-million worth of new cars. These will be paid for by another \$24-million loan from the Pennsy, \$500,000 of the road's own funds, and another \$9-million it hopes to be able to get from banks.

The \$54-million borrowed from the Pennsy will be paid off over the 12-year life of the plan, with interest at 5%. The \$18-million from the banks will also be paid off over 12 years; the rate isn't set yet.

• **Modernizing**—In addition, the road will spend \$11-million in the first three years, and \$34-million over the life of the plan, rebuilding 696 existing cars and rehabilitating the roadbed, the electrical and signal systems, and other facilities. The Pennsy will do much of the car-modernization in its own shops, at cost.

• **Everybody's In It**—The money for this part of the program, and for paying off the Pennsy and bank loans, will come out of the road's regular operations. To assure that there will be enough money to cover it, the plan provides that:

- New York State will waive all taxes for nine years.
- New York City, and Nassau and



"We increased storage capacity one-third, cut car-unloading time by more than 50% with Clark trucks,"

SAYS JOSEPH PALESE, PLANT SUPERINTENDENT, SALERNO-MEGOWEN BISCUIT CO., CHICAGO.

In this Salerno bakery, one of the world's largest, you find four Clark electric fork trucks and three Clark Powrworker hand trucks—unloading and storing raw materials and handling palletized cartons ready for shipment.

Practically all material received from local suppliers—bags of flour and sugar, drums of oil and shortening, other items in boxes, sacks, rolls—is loaded on pallets manufactured by Salerno, and furnished by them to suppliers. The busy Clarks take over at the receiving doors, and handle materials throughout the full production cycle. Benefits are substantial: a 33% increase in storage capacity and car-unloading time cut by well over 50 per cent.

"We are completely satisfied with our Clark machines, and have three more on order," says Mr. Palese.

These benefits can be yours—simply call your local Clark dealer, listed in the Yellow Pages of your phone book: a good man to help engineer a handling system to meet your needs.

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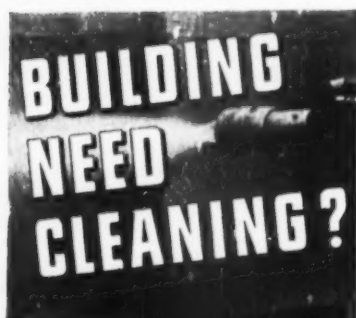
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Suffolk Counties, will waive all non-real estate taxes for nine years.

- The city and counties will continue for nine years to collect real estate taxes at the present dollar level, which is a negotiated figure much less than the actual tax bill.

- The Pennsylvania will get no payment on its present investment throughout the 12-year life of the plan; interest will continue to accrue, however, on the \$40-million of bonds, and on some of the other debt. This, in effect, has been the case since the Long Island went into bankruptcy.

- An immediate 20% raise in all fares will go into effect. The authority estimates this will "be adequate to carry forward the rehabilitation program" if "no substantial increases in operating costs or declines in business occur." But if not, then...

- The road has the right to raise fares on its own hook to whatever level is necessary to "meet the expenses of running the railroad and the improvement program." Any such boost will be subject to immediate review by the New York Public Service Commission, after it goes into effect.

- Preliminaries—Before the plan can be put in operation, the Pennsylvania must get an O.K. from the federal court and the Interstate Commerce Commission to withdraw its reorganization plan, to terminate the bankruptcy, and to withdraw a fare-boost plea it has had before ICC.

The authority hopes this will take no more than three months.

- Will It Work?—What assurance is there that this plan will work, when so many others have failed? None, of course. But this is the first plan that will give the road's customers something for the extra money they're going to pay; on that basis, the authority hopes to attract back to the road some of the passengers who switched to their own cars during the dark days of the bankruptcy. The plan guarantees the road against losses for the next 12 years; by that time it will be operating substantially all new or rebuilt cars, and its plant will be in top shape. The authority hopes that will mean (1) higher income because of more riders, and (2) lower maintenance and operating expenses.

And one down-to-earth railroad man made the observation that "the Pennsylvania wouldn't even consider sinking more money into the road if it didn't think there was a pretty good chance of some return on its basic investment after the 12-year period is up."

As for the commuters, who will be paying for it all, Newsday, a daily paper published on Long Island, commented wistfully that this plan is "the best of all possible plans, simply because it is the only possible plan."

Air Freight

It's not perfect yet, says a Harvard Business School report, but its worth is greater than businessmen realize.

Since World War II, air freight has been the precocious but neglected stepchild of the airlines (BW—Feb. 16 '52, p52). It has grown without any serious, broad-scale study of how it fits into the nation's distribution pattern as a whole. Now its oversight is being remedied by a project of the Harvard Business School.

Last year, John C. Emery, president of Emery Air Freight Corp., a major air freight forwarder, decided the subject needed to be studied. He persuaded three airlines—TWA, American, and United—to share the \$20,000 cost with Emery.

Then the sponsors got the B-School to undertake the project, not just to help out the air freight people but also to learn something for itself. The study was assigned to Howard T. Lewis, professor of marketing.

- Early Returns—Lewis has just made his preliminary report, and there's a good chance that the study will be continued and amplified. Harvard says this is the first independent study of all phases of air freight, though government and trade groups have previously made prophecies of future growth and studies of air transport of specific commodities, such as food, flowers, and apparel.

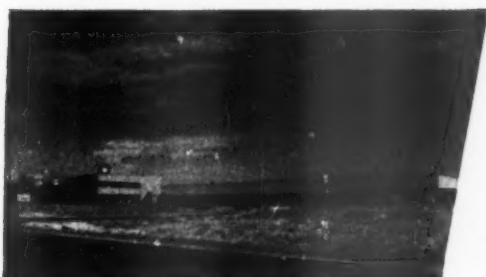
Lewis approaches the subject from the viewpoint of the user of air freight. He interviewed more than 40 manufacturers from November through May, getting their opinions and experiences. His sampling reflects geographical spread and variety of products.

- Findings—Lewis finds management generally lacking in awareness of how air freight fits into the general distribution problem of a company. He also concludes that airlines have mostly neglected cargo in favor of passenger business. Airline cargo salesmen, he says, know rates and schedules but rarely see the larger picture of marketing, cost accounting, inventory.

The preliminary report cites many cases of companies that have cut inventory, warehousing, processing, and packaging costs by relying on air shipments as a standard procedure.

At the same time, Lewis says, air freight is still a relatively expensive form of transportation, the airlines' billing system is as complicated as that of the railroads, and specialized planes and airport facilities aren't yet developed enough.

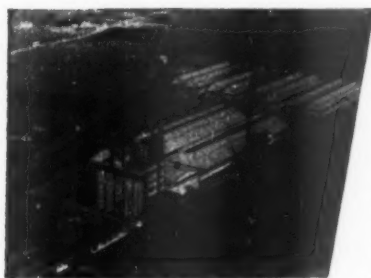
Top Names Lead Rapid Growth of ELECTRONICS-ELECTRICAL PRODUCTS Industry in *North Carolina*



WESTINGHOUSE ELECTRIC CORP.



GENERAL ELECTRIC COMPANY



GREAT LAKES CARBON CORP.

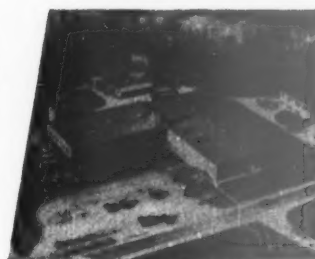
Shown here are a few of the modern electrical products plants in North Carolina. Some of these companies have multiple locations—Western Electric already has three, National Carbon three, General Electric two, International Resistance two—and other famed names not pictured have plants in the State.

Why has North Carolina experienced such rapid growth in manufacturing electronics and electrical products?

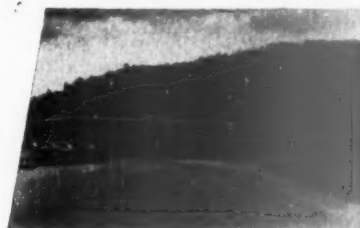
A large supply of native born, intelligent and cooperative labor, quick to learn new skills, is a proven asset in this State. North Carolina workers are producing precision electronic equipment after surprisingly short training periods.

Abundant POWER at reasonable rates... a stabilized TAX structure and a balanced budget... good TRANSPORTATION facilities and easy accessibility to major markets... friendly communities and a State government that desire industry... these are only a few of the reasons why electronic and electrical products manufacturers are locating and expanding in North Carolina.

Desirable sites—rural or urban, in mountain, piedmont and coastal areas—are available in this uncrowded State. Additional information will be furnished promptly upon request.



NATIONAL CARBON DIVISION
UNION CARBIDE AND CARBON CORP.



INTERNATIONAL RESISTANCE CO.



WESTERN ELECTRIC CO.

Ben E. Douglas, Director
Department of
CONSERVATION & DEVELOPMENT
Raleigh, North Carolina

Friendly
North Carolina
Where
Industry Prospers





GM INVITATION drew citizens of Arlington, Tex., to a three-day Open House to launch the company's new auto-airplane plant just outside the town.

Decentralization of the auto industry produced a strange blend of Texas and Detroit when Arlingtonians inspected their new automotive neighbor, with GM President Harlow Curtice (center) playing host.



LOCALITES—46,000 strong—watched mass production in action, chuckled when a horn got stuck. GM had movies for kiddies.



GM Open House:



BODY DROP—where car bodies and chassis come together—was the spot the crowd found most fascinating.



Cars and Cowboys

Decentralization of the auto industry is scattering bits of Detroit into far-flung corners of the country.

Latest to rub noses with a big new automotive neighbor were the citizens of the Texas cattle town of Arlington, midway between Dallas and Fort Worth. Some 46,000 localites spruced up to meet General Motors Co. on June 3-5. They came to an Open House thrown by GM to launch formally a 1.4-million-sq. ft. assembly plant one mile east of the town (pictures).

GM was showing off the first production setup specifically planned as a dual-purpose plant—equally adept at turning out planes or Buicks, Oldsmobiles, and Pontiacs.

It was also taking the opportunity to make friends with surrounding communities by getting them acquainted with the plant. A phalanx of GM brass spearheaded by President Harlow Cur-

tice stood by to do the honors. Along with the Arlingtonians, business and civic leaders from nearby cities and Southwestern GM dealers and their friends came to get an eyeful of 1954 models arrayed in force in a 152-ft. "Aerodrome" tent. They remained to ogle the wonders of mass production.

• **Ambidextrous Plant**—The unique dual-purpose feature of the plant was the brainchild of Secretary of Defense Charles E. Wilson as GM president back in October, 1951. GM originally planned to use one-third of the plant to build Grumman SF-1 antisubmarine planes for the Navy, the rest for cars. Since then the Navy canceled its contract, and GM hasn't bid for any others. But the Defense Dept.—with the Navy holding priority—can call on the plant at any time.

When it does, GM will swing into a quick conversion. "If the Navy said

RCA's new Low-Cost TV Eye

TINY TV CAMERA BRINGS MOUNTAIN TO MANAGEMENT



Here's the new industrial tool that can bring mountains indoors—move operating groups closer together—guard the safety of equipment and personnel—RCA's new, low-cost TV Eye.

Compact TV Eye comprises a small camera—about the size of a 16mm movie camera—and a control unit no bigger than a table radio. These two units connect into any standard TV receiver—operate from 115-volt, a-c outlet.

Wherever distance, temperature or danger keep you from getting a good look at your operation, you need RCA TV Eye.

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Company _____

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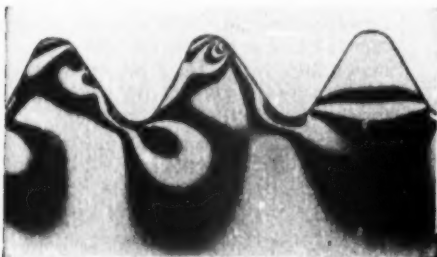
Also send me information on:

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☐ RCA Visual Products ☐ RCA Antennaplex

Only STEEL can do so many jobs



Hurricane Damage? No, this demolition job is being done on purpose to make way for new buildings in an eastern city. Whether buildings are going up, or being torn down, most of the "burden" is carried by the wire rope with which cranes, hoists, and diggers are strung. **TIGER BRAND Wire Rope**, a product of U.S. Steel, is a favorite for this rugged work.



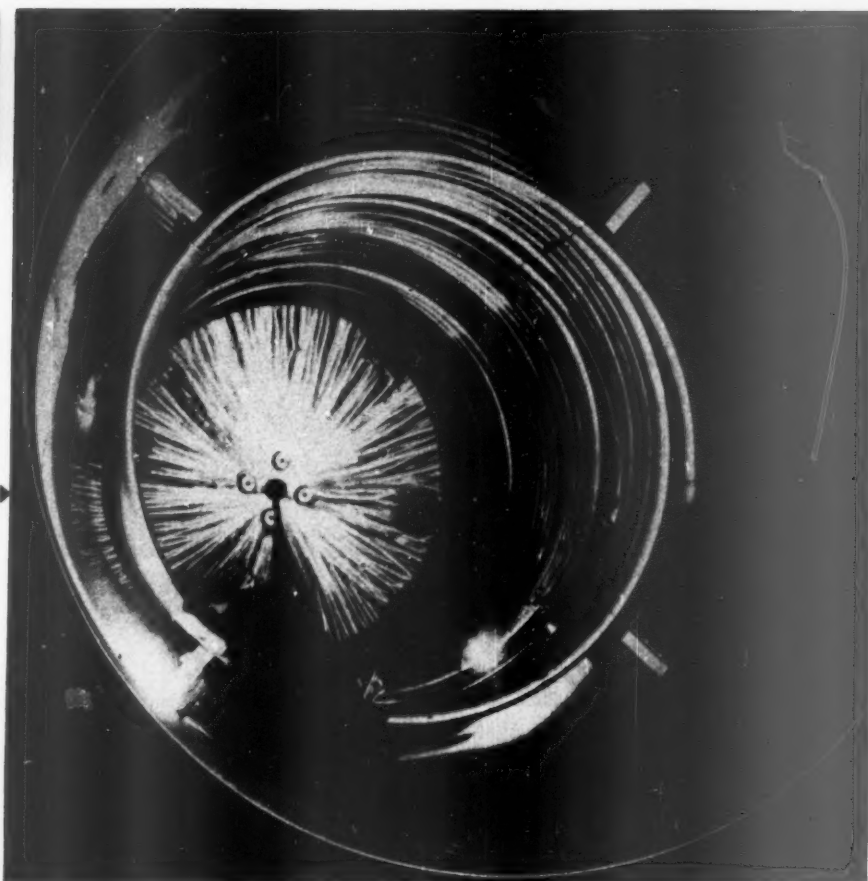
Joint Under Stress. This is a picture of stress patterns along the threads of a pipe joint. Crowding of lines at the roots of threads indicates stress concentrations. In U.S. Steel laboratories, "3-dimensional photo-elastic stress analysis" like this helps to assure strong, dependable joints between sections of USS National Pipe used in oil drilling.

Man Size! When you can step into its mouth and look down its throat, you've got a scroll casing for a hydroelectric turbine that's really big! This one, of welded steel construction, has a 98-inch inlet, a 132-inch bore. It's made by United States Steel.



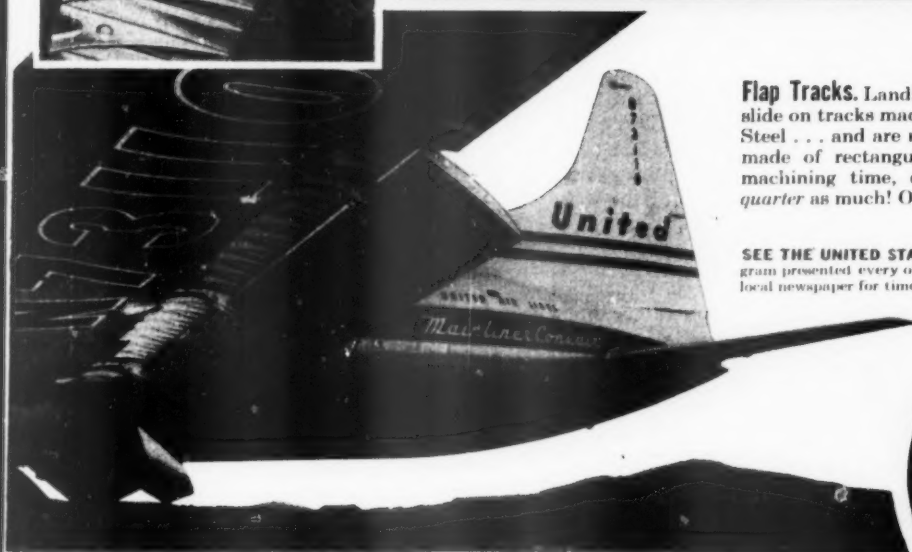
so well

Penicillin Fermenter. This huge coil of stainless steel tubing is being installed in a 15,000-gallon stainless steel vessel to be used for the fermentation of penicillin. Corrosion-resistant, sanitary USS Stainless Steel is equally practical for use in many other kinds of equipment where sanitation and corrosion-resistance are vital.



Flap Tracks. Landing flaps on this Convair Airliner now slide on tracks made of rolled sections of USS CARILLOY Steel . . . and are not only *stronger* than those formerly made of rectangular bars, but require 4 hours less machining time, cut scrap losses 60%, cost only a quarter as much! Only steel can do so many jobs so well.

SEE THE UNITED STATES STEEL HOUR. It's a full-hour TV program presented every other week by United States Steel. Consult your local newspaper for time and station.

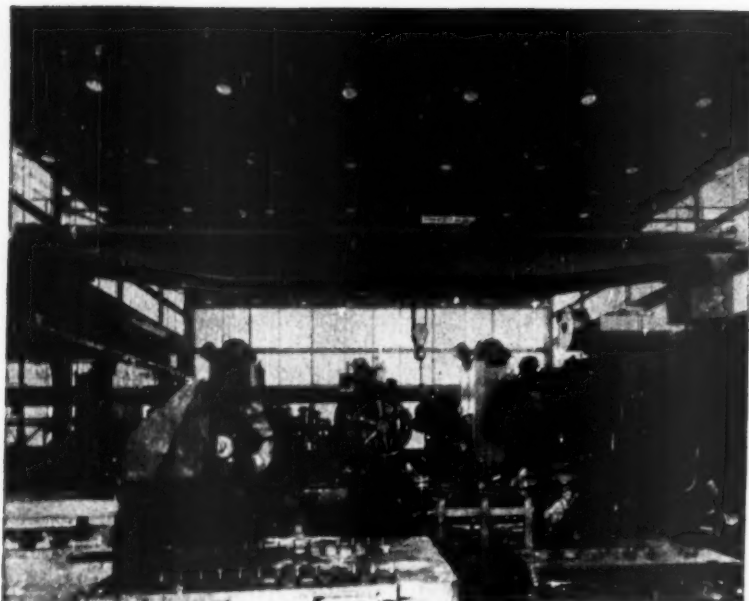


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Engineers—the men who know cranes best—have been specifying "Shaw-Box" Cranes for more than six decades. There is only one basic reason: the inseparable advantages of absolute dependability and permanent economy.

Efficient, low-cost operation, convenient maintenance and complete protection for man, load and crane go hand-in-hand with outstanding endurance in the severest services. For every "Shaw-Box" Crane is the product of an organization with more than eight acres of engineering and plant facilities geared exclusively to the development and manufacture of the most advanced load-handling equipment.

"Shaw-Box" Crane production includes the greatest variety of standard types available from a single source. Capacities range from 500 lbs. to 300 tons or more. All are safety engineered and precision built to rigid specifications to assure the best long-term investment for your crane dollars.

Your inquiry is invited. Send for Catalog 219 showing "Shaw-Box" Full-Electric Traveling Cranes from 5 tons up; Catalog 218 for 'Load Lifter' Cranes from 1 to 25 tons; or Catalog 221 for Series "D" All-Electric 'Load Lifter' Cranes from 1 to 20 tons.



"Shaw-Box" CRANES

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Builders of "Shaw-Box" and 'Load Lifter' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of 'Ashcroft' Gauges, 'Hancock' Valves, 'Consolidated' Safety and Relief Valves, 'American' and 'American-Microsen' Industrial Instruments, and Aircraft Products.

we had to make Chance Vought Cutlasses and they were bringing the tools over [Chance Vought Aircraft Division has a plant a few miles away], we'd have the place cleared out before they got here," says plant manager Edwin Klotzburger.

GM laid out the plant with huge bay areas, widely separated pillars, and unusually high ceilings. Ovens, spray booths, dip tank, and other gear not used for planes are out of the way on the second floor. Equipment, not attached to the floor, is quickly removable.

• **Strategic Site**—For the immediate future, the Arlington setup, newest and most modern plant of the Buick-Oldsmobile-Pontiac Assembly Division, will serve GM's growing Southwest market.

The Arlington site caught GM's eye because it combines the labor, utilities, transportation, and markets of both Dallas and Fort Worth. It borders on U.S. Highway 80 and the Texas & Pacific Ry.'s main track on the north, a secondary thoroughfare on the south.

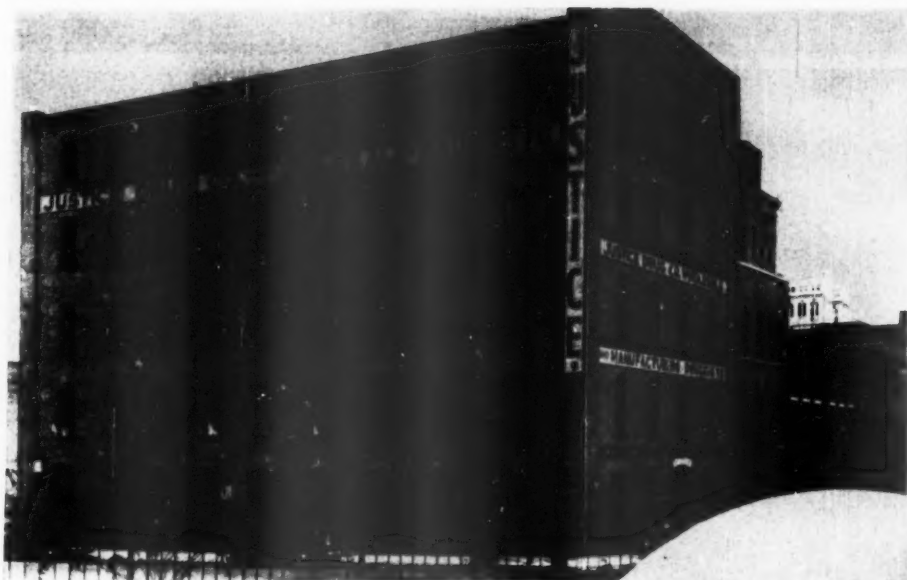
• **Arlington Awakes**—Until GM burst out in its midst, Arlington was a sleepy residential-college community (Arlington State College), in an area long on cattle and grain but short on heavy manufacturing. It counted 7,692 people in the 1950 census, but many more Texans knew it as a series of red lights on Highway 80.

All that changed on Saturday, Aug. 4, 1951. That was the day the local weekly, the Arlington Citizen, not scheduled to come out again until the following Thursday, put out a special edition in 45 minutes to break the big news: General Motors announced it was buying 255 acres for a plant.

In April, 1952, GM got a certificate of necessity to write off \$18.3-million of the cost—rumored at \$35-million—in five years. In May, ground was broken, and in January, 1954, the first Pontiac whizzed off the line. Since then the plant has rolled out more than 14,000 cars, has a present annual production of 60,000 cars.

Meanwhile, little Arlington is bursting at the seams. The plant opened a lush employment field for 2,000 workers—90% of whom were hired locally, many with wartime airplane experience. Population has swelled to an estimated 23,000. Deposits in the new First National Bank have piled up from \$1.2-million in July, 1952, to \$3-million.

The town is handing out building permits at a rate of \$1-million worth a month. At least 50 residential subdivisions have sprung up, and builders are still falling all over each other. What with the new homes, office buildings, shopping centers, three elementary schools, the First National Bank, and a planned 168-acre municipal park, it's a field day for Arlington real estate men.



*When fire struck,
which
drug company
had the
right remedy?*



For the television audience, there was drama in the billowing smoke and destruction, as fire swept through this drug company warehouse. For its management, the half-million dollar blaze spelled disaster.

Negligible damage, on the other hand, was the only consequence of a fire in the Justice Drug Company building, Greensboro, N. C. Here, a Grinnell Automatic Sprinkler System with the aid of firemen quickly stifled what might have been a disastrous fire had it swept toward explosive chemicals stored in the warehouse section.

Grinnell Sprinklers stop fire at its source, wherever and whenever it strikes, night or day, with automatic certainty. 76 years experience proves this. Now, with Grinnell Automatic *Spray* Sprinklers, you get even greater protection against fire. *Less water puts out more fire.*

A Grinnell System often pays for itself in a few years through reductions in insurance premiums. So, if you have fire insurance, you're probably paying for Grinnell Protection anyway . . . *why not have it?* For further information on Grinnell Fire Protection Systems, mail coupon.



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Manufacturing, Engineering and Installation of
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Please send me your new illustrated booklet, "Grinnell Automatic *Spray* Sprinklers".

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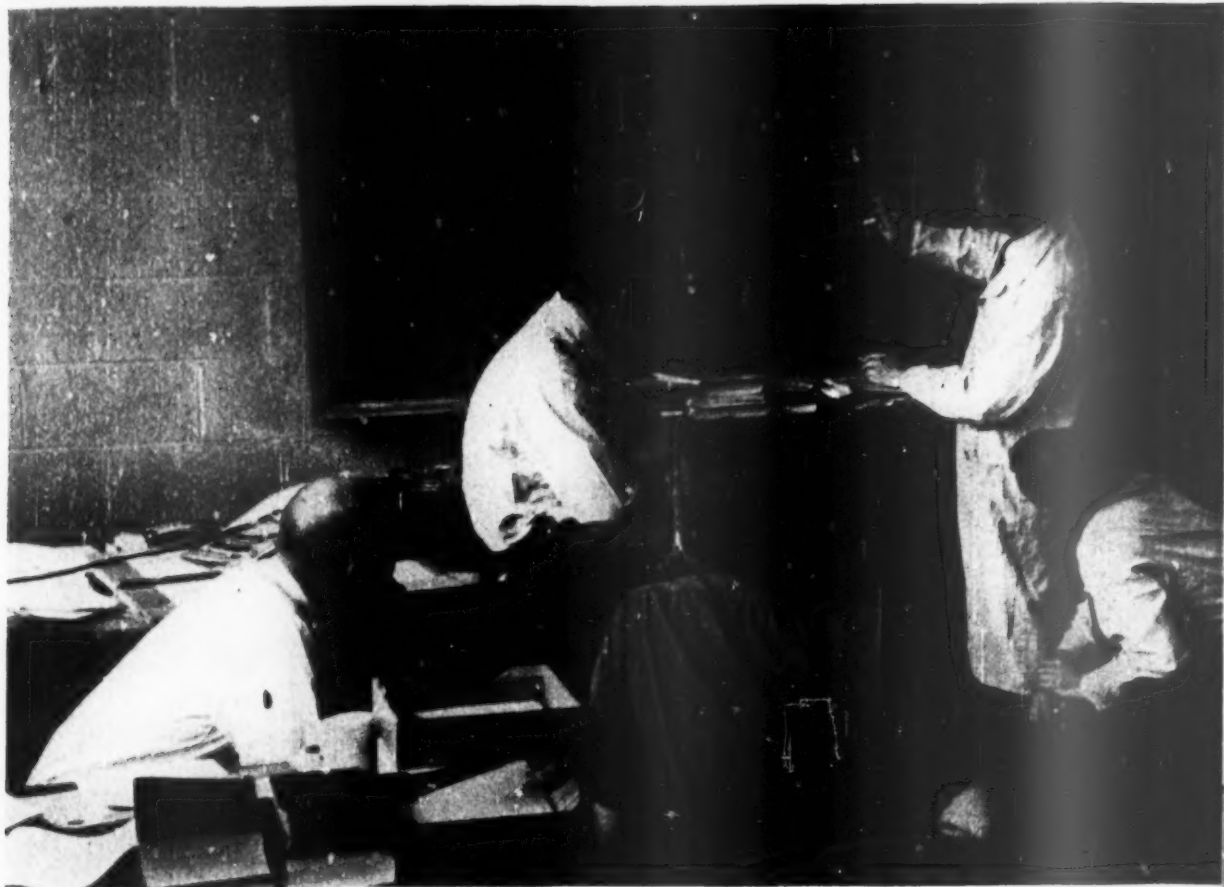
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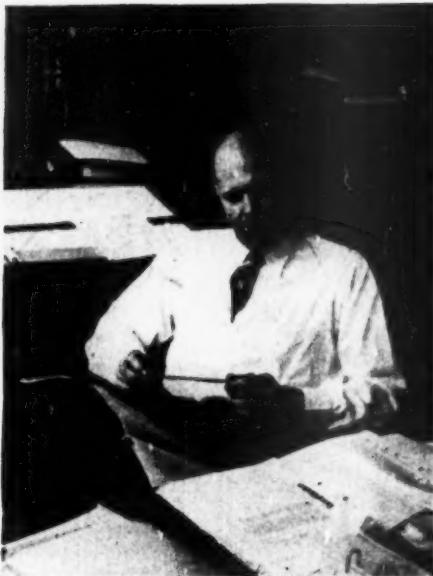
ZONE _____

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RESEARCH



LEADER William Gordon organized team and now guides it. It's his job to deal with clients in industry.



LEG MAN Stephen Swift helps Gordon contact clients. Swift is a production specialist—and he is generally considered one of the group's more practical men.



SKETCHER Alden Eriksson translates the group's ideas into drawings—an ability he picked up with mechanical engineering.



These are six members of the seven-man "design synthesis staff" of Arthur D. Little, Inc. They are inventors—men who, normally, might prefer to work alone. This is the story of . . .

Inventors Who Use The Team System

There are seven men pictured on these and the following pages. There are seven minds, each functioning in its own way, moving at its own speed along its own characteristic routes. They are as different as seven hats in a milliner's window.

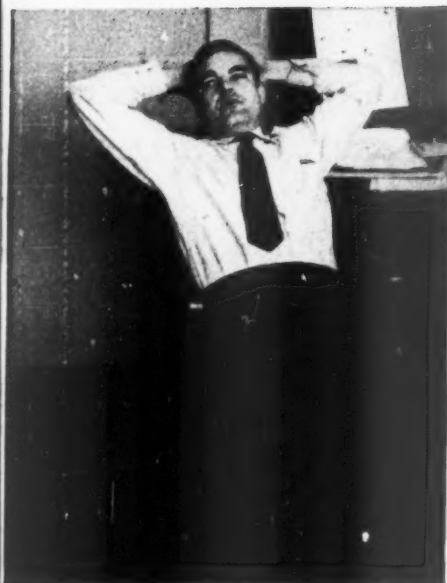
And yet these seven minds, despite their differences, have two things outstandingly in common. First, they are extremely able. Some move with quick cleverness, others with ponderous strength; some are highly imaginative, others more solidly practical. But all are able. Each mind works smoothly and efficiently, in its own peculiar way.

Their second similarity is this: Each mind is a storehouse of scientific and

engineering knowledge, and a breeding place for scientific and engineering ideas. These seven men are professional inventors. They invent things for the clients of Arthur D. Little, Inc., Cambridge (Mass.) company that works as a consultant on industrial research and development problems.

To outsiders, there is something very strange about this setup. Here are seven men with diverse minds. What is more, all seven are inventors—men who, by tradition, should be working alone in basements and attics. How can they possibly work together as a team?

Somehow, they manage—and quite easily. To see how they do it, turn the page.



DESIGNER William B. Martin knows much about engineering and electronics, but is concerned chiefly with the way products look.



SCULPTOR John Cheney, who has a degree in chemical engineering, translates ideas into clay or plastic models. This helps the group visualize what's in his mind.



LIAISON MAN Robert Davidson keeps contact with the team's lone wolf (turn the page).



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CARLETON MARDEN builds models of the team's inventions.

POWER TOOL

How Seven Inventors

The man in the white hat pictured above, and the six younger men pictured on pages 78 and 79, form a team of inventors. Many scientists and engineers might well ask how such a team could hope to work.

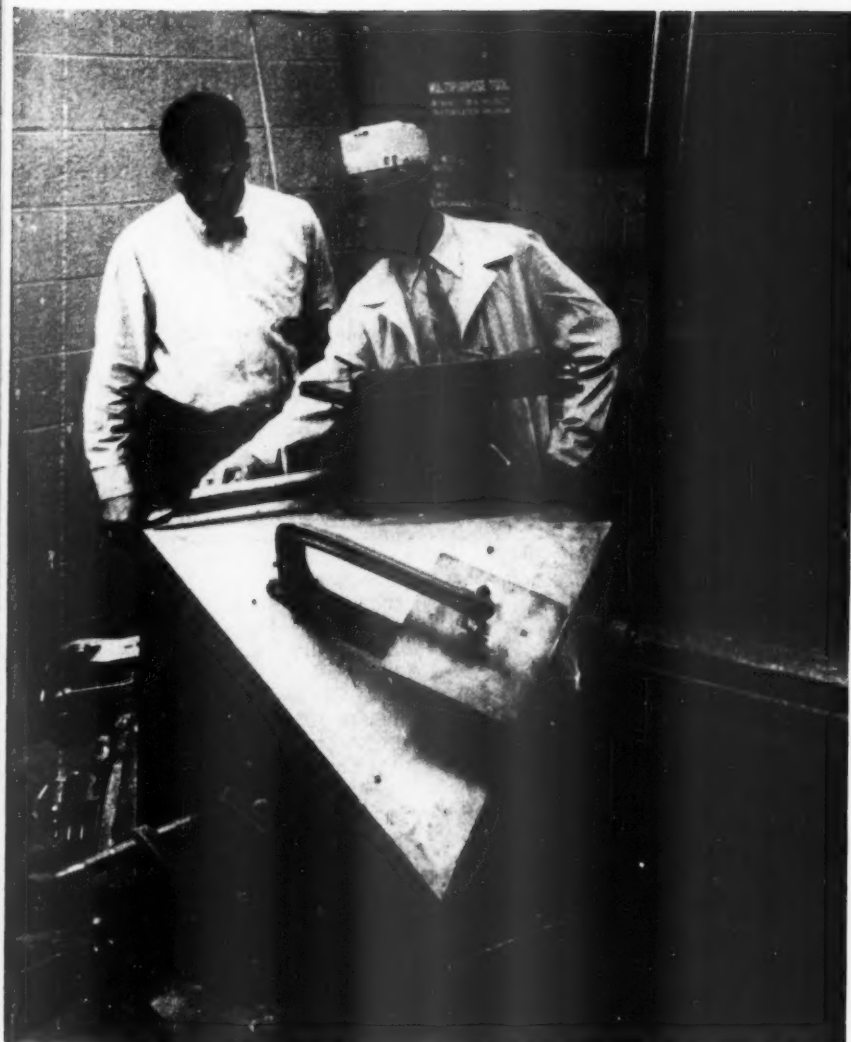
Team research is one thing; team invention is a little different. It is just different enough so that, while team research has proved itself practicable and is now a fairly common phenomenon, team invention is something of an industrial oddity.

Team research (BW—Oct. 24 '53, p112) draws together several research scientists—each with his own specialty—to work on a specific problem. The scientists are given a certain amount of freedom; but, since their job has been specifically outlined, there are regions of thought

into which they may not wander on company time. If the problem consists of finding a long-wearing material for a brake system, for instance, they may not experiment with white mice or study the craters of the moon.

This system is popular throughout U. S. industry. But it has disadvantages for the man of science who values, above all, the opportunity to let his mind glide free. This man is likely to be a true inventor. If he can possibly arrange it, he is a free-lance inventor, working on his own. According to some of the best authorities, he does not work well under any but the lightest discipline. Force him down too narrow a path, get too specific with him, and his ideas dry up.

Arthur D. Little knew all this when,



for home workshops is one of the group's more successful completed projects.

Work Together (Story starts on page 78)

two years ago, it started to set up its invention team. But the company was convinced that the lone inventor, gradually being replaced by team research, was too useful a fellow for industry to lose. And it was convinced that team invention could be made to work—that it was possible to find something midway between team research and lone invention, possibly combining the advantages of each.

According to the company, and according to all seven of the inventors, the idea has worked.

I. Strange Labfellows

Arthur D. Little and its inventors have hit a delicate balance between discipline and anarchy. Obviously,

some strand of discipline is necessary; otherwise, the result would be a hodgepodge of miscellaneous inventions that would proceed to gather dust on shelves.

But the discipline is so light as to be almost invisible. Nobody gets very specific with Little's inventors. Hardly anybody gives them orders. If they don't like the sound of a suggested project—if it doesn't seem interesting, or if it doesn't offer enough challenge to the imagination—they reject it.

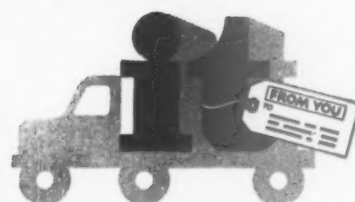
They work on all kinds of consumer products. A client company might ask them to invent a new kind of pencil sharpener, or it might give them a wider field than that by merely asking them to invent "something" that it can manufacture and sell profitably.

Whatever the company asks for, it is

To make



To move



To market

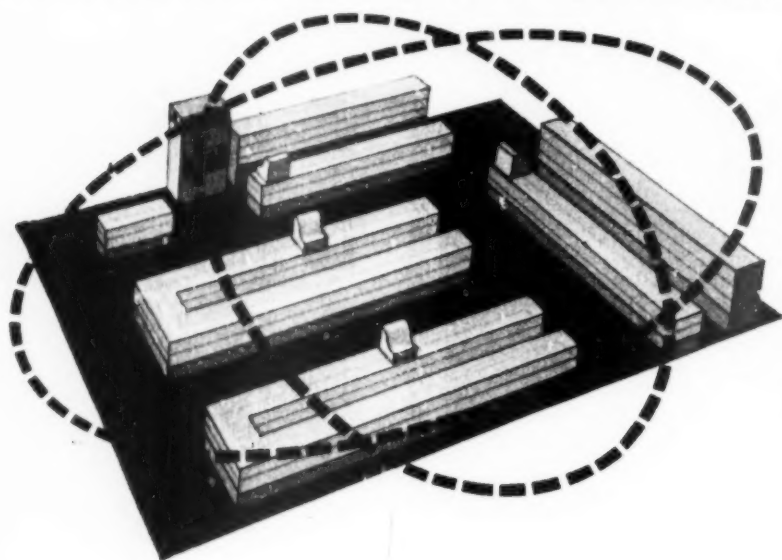


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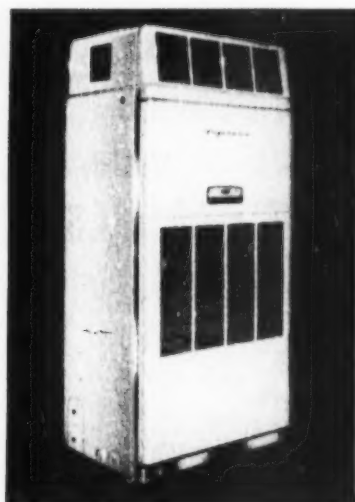
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"... an expert at translating even the vaguest ideas into drawings . . ."

INVENTORS starts on p. 78

likely to get something radically different from the products it is used to seeing. For the inventors scorn the idea of merely changing the outward appearance of a product. If they are asked to design a new pencil sharpener, they are likely to invent a totally new sharpening principle.

They develop the product from idea to prototype model. After that, it is up to the client company to figure out the engineering details of putting the product into production. In its two years of operation, the team has finished 15 projects and turned the results over to clients. Among these projects has been a power tool for home workshops—a machine designed to do almost every job in the realm of weekend carpentry.

• **Members**—The seven men who make up this team bring together all sorts of useful qualities:

William Gordon, aged 35, is the team leader. He organized the team for Little, and now carries the responsibility of guiding it. Gordon is a scientific jack-of-all-trades. He is also something of a salesman. It is part of his job to seek out clients for the team—to find out what kinds of things manufacturers want invented. When the team comes up with an unsolicited idea of its own, Gordon tries to sell the idea to a manufacturer.

Stephen H. Swift is the team's other outside man. He works closely with Gordon in contacting clients. He is one of the more practical-minded members of the group; a production specialist, he lets the team know whether or not their ideas can be engineered and produced economically.

Alden Erickson is an expert at translating even the vaguest ideas into drawings. This lets the other team members, and the clients, visualize better what is in the team's collective mind.

William B. Martin is an artist. He also has vast experience in industrial engineering and electronics. His main interest is in making products look attractive.

John Cheney has (1) a degree in chemical engineering and (2) training as a sculptor. He often takes Erickson's drawings and translates them into clay or plastic models.

Carleton Marden is a one-time private inventor with hosts of patents to his name. He does less talking and less kicking around of ideas than the other men. Instead, he spends his time making working models of the things



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invented by the team. He is an expert at machining metals.

Robert B. Davison works closely with Marden. Davison is equally at home in the realm of theoretical discussion and in the machine shop. He acts, in effect, as liaison man between the team's ideas and Marden's hands.

II. The Team at Work

How do these seven men go about producing ideas? They do it largely by discussion. Each project involves a series of powwows—the first one vague and general, the others successively more detailed and technical.

The picture on page 78 shows the group in the midst of discussion No. 1 on a new project—an electrical toy. Before the meeting convened, none of the members but Gordon knew anything about the project. Gordon introduced the subject, then let the ideas roll out. The discussion went like this:

Davison: "Must it be mechanical or electrical? I still think blocks are best."

Swift (the practical production man): "What price?"

Gordon: "Around the price of an electric train."

This starts the team thinking of electric trains. What has made these toys sell so well for so long, while other toys fell by the wayside? Gordon starts listing the features of electric trains on a blackboard: (1) Moves, (2) operates in controlled area, (3) remote-controlled. He adds more features as the talk goes on.

Swift (thoughtfully): "One of the biggest things for kids is digging their hands in dirt."

Gordon: "They like to run things by remote control. What is a 'remote-control' feeling?"

Cheney: "The electric train represents the adult world."

Gordon: "Let's think of this: A child likes to build. But you can't build a train you've bought already made."

Davison: "Putting together track is building."

• **Direction**—The discussion rambles on in this way for a long time. It covers cowboy suits, space ships, sandboxes. The team decides that the most successful toys involve either building or movement, or both. An idea evolves out of nowhere: Why not have a carpet containing an electrical grid, over which a child can run cars and trucks by remote control? The discussion suddenly ceases rambling.

Erickson: "You could have the grid pattern diagrammed in front of you, move trucks and cars in all directions. Have the trucks crash."

Swift: "You could sell sections of grid to expand your layout."

Cheney: "Reinforced paper would be good."

Davison: "Any number could play at once."

Swift: "Each truck could be a bar magnet."

The talk rolls on, getting more and more detailed. Somebody suggests that a child can design his own roadway system, put up houses and traffic lights. Here is both building and movement. The inventors begin to discuss how the toy might be made.

• **Progress**—This first discussion took three hours. In the next meeting, the inventors will kick around more ideas. They might decide to abandon the toy car and truck idea entirely, or they might look into it a little more deeply. Eventually, they will hand the client an idea for what they consider to be a bright, new, salable toy.

III. From the Inside

These seven men, all individual inventors by nature, enjoy working together thus. Not only do they enjoy it; they feel that in their easy cooperation they have discovered something valuable.

They think they have found a way of harnessing seven individually creative minds, making these minds work together, without destroying the freedom of any one of them.

All of the men feel that they benefit, rather than lose, from their association. Each man has a chance to give his ideas all the play they want. At the same time, each man has the chance to test his ideas on other men, and to use those men's ideas to temper his own.

• **Evaluations**—You can gauge the feeling of the group by listening to the inventors talking of themselves and of each other. Every one of the men has a fairly exact picture of his relationship to the other six, and of the contribution each makes to the group's creative efforts.

Says Swift of Gordon, for instance: "Gordon is an extrovert. He loves to talk to people." Says Gordon of Swift: "Swift knows when to shut me up. I get involved in my own ideas sometimes."

Marden, who seldom joins in the group discussions, gives this as his reason: "I'm the only old man in the group. They're all around 30. I'd be out of place in their sessions. I work alone in the shop." Davison, youngest man in the group and Marden's sidekick, says this of the machinist: "Carl works by feeling metal. He is the backbone of the group." Swift's opinion: "Marden feels he can't express ideas. But he has loads of them. He is never satisfied with an idea."

Erickson produces ideas in group discussions, but he sees himself as mainly a tool for putting other people's

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SADDLE SHAPED SEAT—WITH FOAM RUBBER CUSHION	Yes	Yes	Yes	Yes
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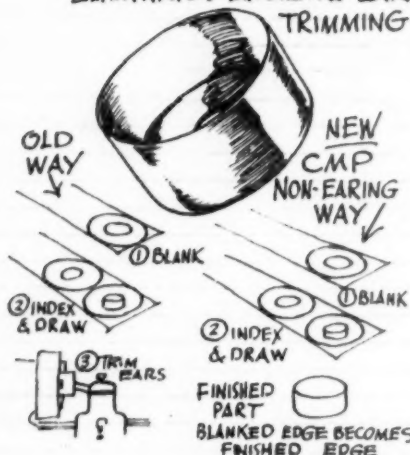
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ideas on paper. "I have a visualizing ability," he says. "Combined with 12 years experience in mechanical engineering, it lets me see into the minds of other men and make a picture of their ideas." Eriksson considers himself a practical man. He finds Gordon's imaginative leadership stimulating. Gordon, he says, is "spasmodic and exciting."

Martin, like Eriksson, has artistic ability. "Most of my work on the team," he says, "has dealt with the visual aspects of products." He likes to make sure that things look good as well as work well. Says Swift of him: "Bill Martin is patient and methodical."

• **Parent**—These delicate relationships within the group form its nervous system. They keep the group working smoothly—as a unit, rather than as seven parts.

Another relationship that helps the group to function is its relationship with its company, Arthur D. Little. As a consultant to industry, Little maintains a vast staff of specialists in all kinds of fields—chemistry, engineering, marketing, patents, and almost everything else that might interest business. This staff is at the inventors' disposal. It helps Gordon's team discover at an early stage whether any given idea is worth working on—whether the idea has a potential market, whether it is really new, whether it can feasibly be made or mass-produced.

Research Squeeze

Under the new budget, research and development spending by Defense Dept. is due for a 10%-15% cut.

The economy-push is showing up in research and development contracts for the Defense Dept. Estimates in Washington are that limitations imposed by the Defense Dept. and Congress on the fiscal 1955 budget, which begins July 1, will reduce spending between 10% and 15%.

Much of this cut is expected to come in reducing and eliminating less essential projects. But increases will be few even for some that are closely tied to weapons development—such as rocket fuels, or propellants. And the further the project is from completion, the greater the chances for a cut in funds.

• **Efficiency Aspect**—The impending cuts reflect two developments:

• There has been a general retreat from the Korea spending peaks in research and development when the U.S. tried to buy research time with money. Relaxation of the time pressure will

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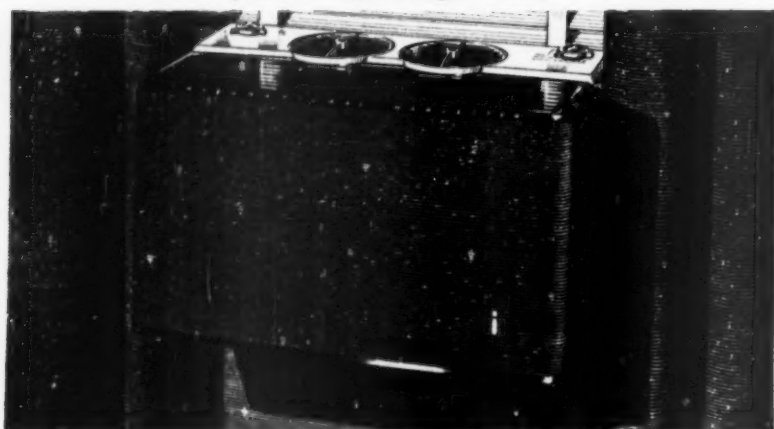
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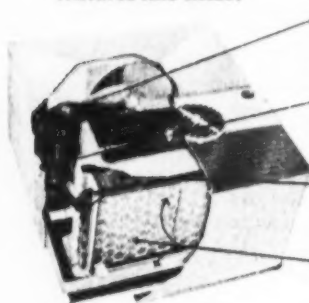
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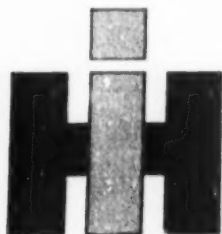
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" . . . moreover, spending commitments will be kept on a shorter-range basis . . ."

RESEARCH SQUEEZE starts on p. 86

permit more efficient use of research funds.

• **The economy drive** to crack down on wastefulness in all government departments. As one step toward better fiscal management the level of spending is to be maintained near a constant rate of \$1.2-billion a year, eliminating sharp increases and decreases. Moreover, spending commitments for research and development will be kept on a shorter-range basis.

• **Changed Stress**—There are some significant changes in emphasis in programs under the new budget. In the chemical field, for example, spending for chemical, biological and atomic warfare is going down \$2-million from the current year's peak \$63-million. On the other hand, money allotted to the Air Force's aircraft propulsion program, down during the current year from previous highs, is to increase 27% to an \$80-million level. This is an example of the efforts to concentrate on projects close to producing results as against those further back along the line.

Even so, one propellant contractor feels the funds will be inadequate. He says: "We have new developments that we think are hot. I can't see how they can refuse us the extra money we'll need to develop them—but I still won't be surprised if we have to go along at our present level."

Other areas will feel the change, too. The Army's land combat research, which includes work with new types of ammunition, explosives, and flame warfare equipment is due for a 10% reduction from present \$108-million. Air Force and Army work on air defense, which includes some propellant projects, has had some pruning of side projects. Much of the Navy's chemical research has been put under the Office of Naval Research, which will get back part of the cut taken in its budget last year. However, the new \$54-million figure will still fall short of ONR's Korea-peak totals.

Assistant Secretary of Defense Donald Quarles feels that an over-all research and development budget of \$1.2-billion is the best balance among many factors and will keep the military research program in line with the military's "new look" program. He believes that the annual figure will maintain a fairly satisfactory level of research activities, keeping a balance between government-military research and civilian science.



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*Somewhere in your set-up, there's a spot where one of our special alloy steel products (stainless or heat-resistant, tool or electrical) can be used to gain you a real advantage. Right now! It might come from reduced production, maintenance or depreciation costs. Or it might come from increased sales appeal: gaining an edge on competition in beauty, strength, service life or performance. The advantage is *there*—and our Research and Engineering Staffs are ready to help you find it. **Allegheny Ludlum Steel Corporation, Oliver Building, Pittsburgh 22, Pa.***

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They wiped out "Cardiac Ramp"...

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"Cardiac Ramp" — so named by commuters — is a steeply inclined tunnel serving as the link between the Hudson and Manhattan and the Erie Railroads in Jersey City, New Jersey. Day after day, weary New York City workers had to struggle through this hot, heartbreaking bottleneck. Trains were missed — patience ran out.

The Hudson and Manhattan R. R. Co. looked for some means of speeding up the flow of commuters through the tunnel — and making their transfer more pleasant. Some form of transportation had to be installed. They needed a continuous, high-capacity system that could safely handle rush-hour crowds, yet economically carry normal traffic.

A Climbing Sidewalk — trade-named "SPEEDWALK" — was the answer. The world's first commercial installation, this human cargo carrier consists of a wide conveyor belt — reversible in direction to handle traffic peaks — and fitted with moving handrails. Designed jointly by the G.T.M. — Goodyear Technical Man — and

Stephens-Adamson Mfg. Co. of Aurora, Ill., it moves at half normal walking speed and effortlessly transports as many as 10,000 persons per hour up or down the 10% incline.

Wherever crowds create traffic problems, or speed and convenience are

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"Speedwalk" — T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

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the answers to any questions you may have. He's also the man that can show you how to get the most out of rubber in every imaginable industrial use. Contact him by writing:

Goodyear, Industrial Products Division
Akron 16, Ohio

GOODYEAR

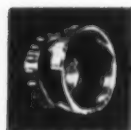
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RESEARCH BRIEFS

Salt water farming, which is being studied on Molokai, one of the Hawaiian Islands (BW-Feb. 6 '54, p. 82), appears promising, after only three months of experimenting. Truck crops have surpassed the expectations of Dr. Gordon T. Nightingale, who directs the project financed by Molokai Ranch Co. and the Industrial Research Advisory Council.

Specialized facilities at the Atomic Energy Commission's National Reactor Testing Station in Idaho are being made available on a limited basis for public use, AEC has announced. Even portions of the area of the reactor's greatest neutron intensity—used primarily for AEC projects—may be made available from time to time. The reactor is operated for AEC by Phillips Petroleum Co.

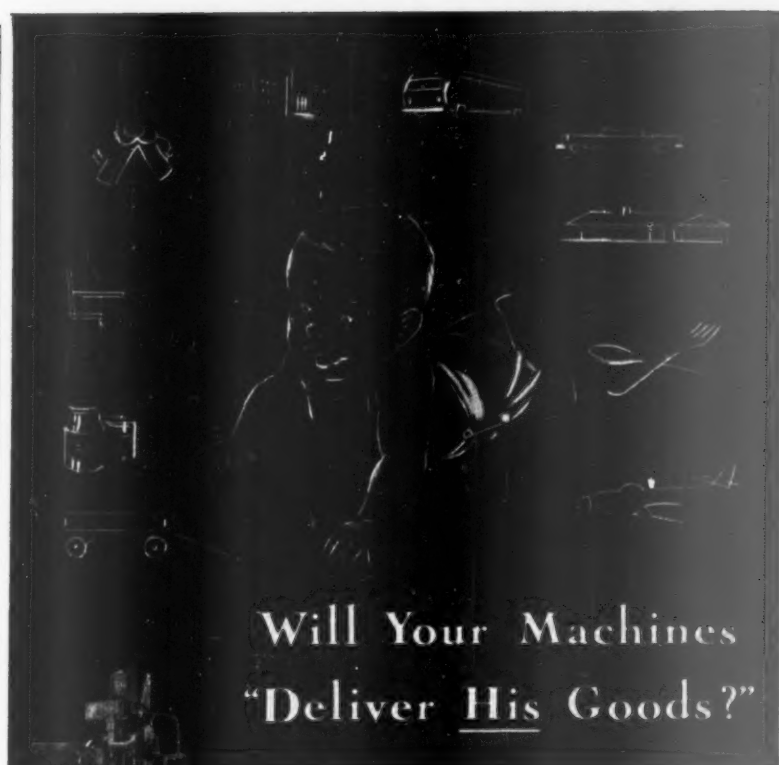
Soap bubbles are getting the treatment at General Electric Co.'s Research Laboratory (BW-Jun. 5 '54, p. 80). Scientists are looking for a clue to development of stronger metals or ones with other improved qualities. GE researchers have found that bubble growth is very similar to the growth of crystals in metals.

Wind tunnels will play a bigger part in aeronautic research, according to announcements made on the West Coast. California Institute of Technology plans to spend \$8-million to raise the velocity from 900 mph. to 1,400 mph. in its 1944 supersonic tunnel; North American Aviation, Inc., will build a smaller tunnel with wind speeds ranging from 400 mph. to 2,280 mph., at a cost of \$4.5-million.

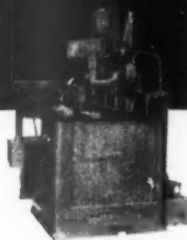
Weather and glacier behavior relations will be studied this summer by a group of scientists who left early this month for Lemon Creek Glacier in the Juneau (Alaska) ice field. The project is conducted by the American Geographical Society, and sponsored by the U.S. Army and Air Force.

A model seaplane towing basin—the first on the West Coast—will be built at San Diego by Convair Div. of General Dynamics Corp. The 700-ft. lab will have two 300-ft. towing basins and a 100-ft. turning basin. It will be used for research and development of jet and turbo-prop seaplanes.

Plastics as a housing material will be the subject of a one-year research program now being organized at Massachusetts Institute of Technology. Monsanto Chemical Co. has made a grant of \$10,000 for the project, which will be supervised by five members of the MIT faculty.



Will Your Machines
"Deliver His Goods?"

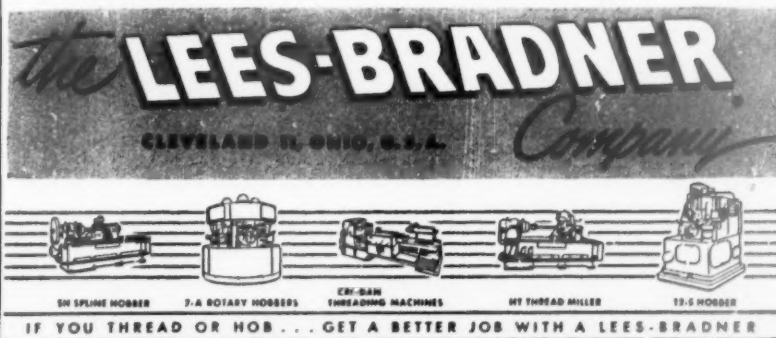


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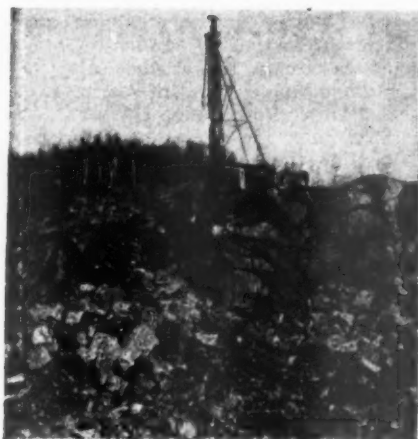
This is the fine 60% iron concentrate that Humboldt Mining Co.'s new beneficiation plant is producing from the hard, lean jasper rock of northern Michigan. You're going to see more and more of it and its Minnesota cousin, produced from taconite, coming down the lakes to be fed to blast furnaces. By 1970 the stream will be a flood.

Iron from

With iron ore in the Lake Superior region running out of the producers' cars this year, the opening of a new beneficiation plant—even one with a modest 250,000-ton per year capacity, as shown in the pictures—might seem like rushing a lump of coal to Newcastle by airmail special delivery.



KEY MACHINE in preparing nonmagnetic jasper for recovery of iron is this 48-in. gyratory crusher, which breaks up the rock to 8-in. and less in size. Later steps reduce size to 65-mesh (small enough for a screen with 65 openings per linear inch).



JET DRILLING—or “burning”—is the answer for getting hard jasper or taconite out of the earth. This “burning” rig drills a 40-ft. 8-in. hole to prepare for blasting.



FLOTATION process for recovering iron is prepared in these “coffee pots” which feed a reagent to coat each tiny iron particle in crushed jasper; this reagent carries iron with it, clings to air bubbles forced up through . . .



. . . these flotation cells, and foams off at the top. Waste, not attracted by reagent, sinks to bottom.

Jasper: Off to a Running Start

But take a second look at what's ahead for this jasper beneficiation plant of the Humboldt Mining Co. near Ishpeming, Mich., following its formal opening this week. Officials of Humboldt's two parents, Cleveland-Chiffs Iron Co. and Ford Motor Co., did the formal honors. A close-up view brings

into focus some of the inescapable facts and almost boundless prospects these businessmen can see for their newly christened baby—and for the jasper and taconite ore concentrates of northern Michigan and Minnesota.

• It's the first beneficiation plant, built on a commercial rather than a

pilot plant basis, to get into operation to recover iron from the lean non-magnetic jasper ores in Michigan.

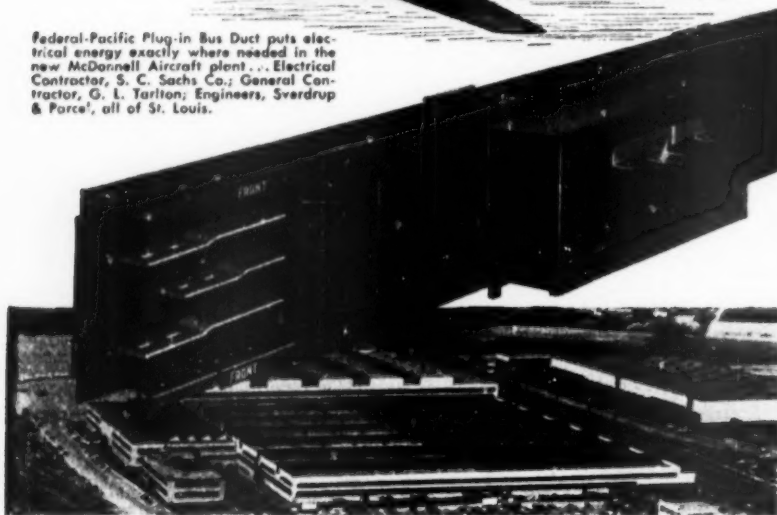
• It has already gone through its shakedown and bug-elimination test runs and is now operating on a seven-day week, around the clock.

• Its opening gives new proof that

FEDERAL-PACIFIC BUS DUCT HELPS BUILD JET FIGHTERS



Federal-Pacific Plug-in Bus Duct puts electrical energy exactly where needed in the new McDonnell Aircraft plant. . . . Electrical Contractor, S. C. Sachs Co.; General Contractor, G. L. Turlton; Engineers, Sverdrup & Parcel, all of St. Louis.



MCDONNELL AIRCRAFT CORPORATION of St. Louis, builders of the famous Voodoo, Banshee and Demon jet fighter planes, will soon occupy a big new Navy plant. . . . and to carry electrical energy to motors throughout the plant, nearly three miles of Federal-Pacific Low Impedance and Plug-in Bus Duct have been installed. This assures maximum convenience and flexibility by providing plug-in power outlets at one-foot intervals where machinery is installed.

DESIGN AND ENGINEERING COOPERATION

Federal-Pacific engineers are always ready to cooperate with consulting engineers and contractors to coordinate its bus duct line to the particular needs of individual installations. Furthermore, Federal-Pacific is continually engaged in designing and building special bus duct for unusual applications.

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Leadership in the design of electrical distribution and control equipment through the whole range from 110 volt: to 300 kv has created a huge demand for Federal-Pacific products. Manufacturing facilities have been rapidly expanded until today eleven Federal-Pacific plants are serving the industry from coast to coast.

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Affiliated plant, Toronto, Canada

the years of research, engineering, and pilot plant testing on beneficiation of northern Michigan's jasper and Minnesota's lean iron-bearing taconite are starting to pay off, that the future of the 60% to 63% iron concentrates produced from these ores is already at hand. (Jasper and taconite are similar, but there are differences, notably in structure.)

• The new plant will help to double this year the 1953 output of these iron concentrates and set off a fantastically rapid pyramiding of both plant capacity and production: another fivefold expansion within two years, and by 1970 an estimated output more than 30 times this year's figure. By that time, you can figure that the iron concentrates will have as big a place in the picture as the conventional type ores—and with some of the biggest jasper and taconite reserves still untapped.

I. A Quick Look Ahead

As yet, the concentrates are still just a drop in the bucket of some 75-million gross tons of iron ore from the Lake Superior area that will be used this year—an even smaller drop in last year's 95-million tons. And this is the first year in over a decade that iron ore producers have not felt extreme pressure to get out every pound of ore they could possibly dig.

The 1953 production of 620,000 gross tons of agglomerated iron concentrates and fines came from the Minnesota taconite beneficiation plants of Reserve Mining Co., Erie Mining Co., and Oliver Iron Mining Div. of U. S. Steel Corp. These plants are still classified by the companies as pilot and experimental setups. This year they will produce an estimated 1-million tons (all iron ore tonnage figures are in gross tons).

To that Humboldt will add its 250,000 tons—going not to the open market but direct to Ford Motor Co.

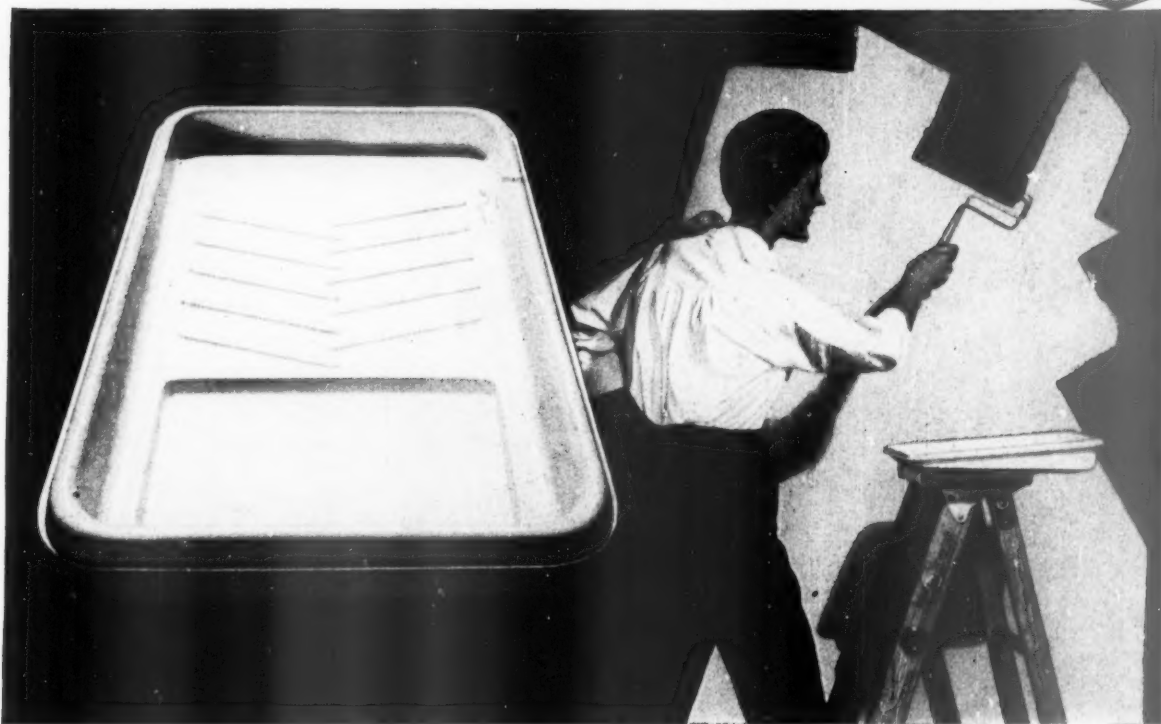
By 1956, this 1,250,000 tons will jump to 6,250,000 or more.

Skip over a decade and a half (BW—Oct. 4 '52, p. 70) and what do you see? By 1970 you can expect a total U. S. iron ore consumption of anywhere from 105-million to 125-million tons. Foreign ores from Venezuela, Labrador, and elsewhere will add up to less than one-third of the needs. If all presently planned additions to capacity are completed, an estimated 40-million tons of the 63% concentrates will be floating down the lakes to the blast furnaces of Chicago, Cleveland, Youngstown, Middletown, and Buffalo. That will mean perhaps only 40-million tons or less of the present standard 51.5% iron ore, as the direct shipping and open pit iron ore mines become exhausted.

• Preparing—To jump from 14-million

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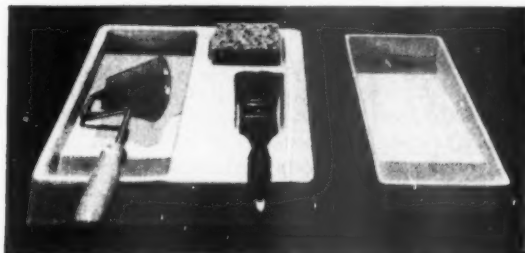
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tons a year to 40-million a year will take a lot of new plant capacity—and a lot of money. That's why Cleveland-Cliffs is hurrying up work on a jasper beneficiation plant at its Republic mine, six miles from Humboldt. That's why Erie, Reserve, and Oliver are planning ahead for taconite beneficiation plants of 10-million-tons a year capacity apiece by the late 1960s or 1970. By then, the jasper-taconite investment should be well past \$1-billion and may easily be pushing \$2-billion—not a dime of it government-financed.

That's also why all the companies are stepping up research on new and better methods of beneficiation and are looking into the possibilities of atomic energy as a fuel for the power-hungry beneficiation plants.

And it's why the flotation process used by Humboldt for recovery of iron from nonmagnetic jasper has an importance far beyond the 250,000 tons a year of concentrate it will produce in the new plant.

II. Jasper Pioneer

Humboldt's plant and mining operation is on the site of underground mines whose rich ores have long since been removed; it's 13 miles from Ishpeming, for many years the center of Cleveland-Cliffs' mining activities. There remain at Humboldt, however, an estimated 12-million tons of iron concentrate, once the raw material has been beneficiated.

Humboldt Mining Co. has invested a bit less than \$6-million in the plant, not counting research and pilot operation.

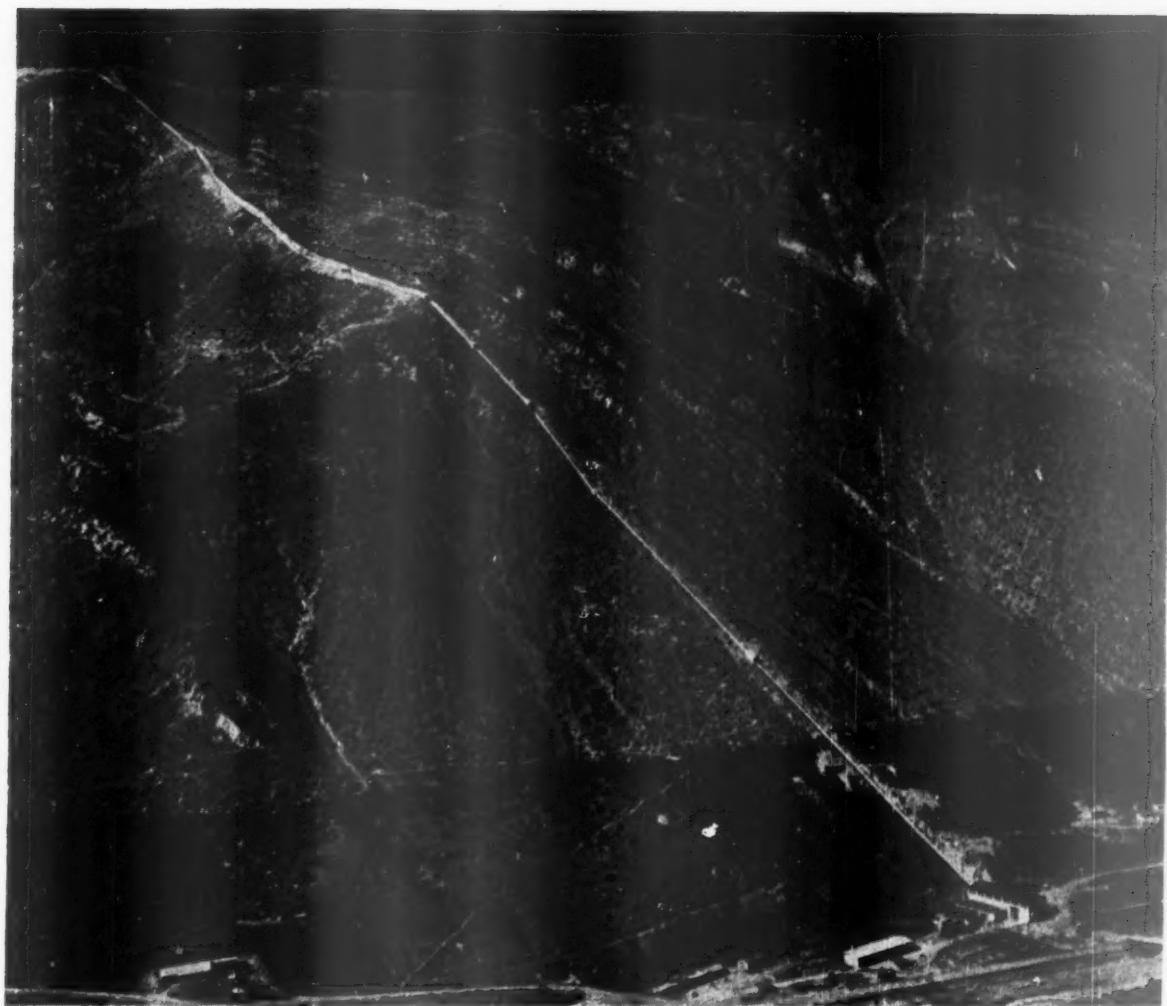
The jasper, containing narrow bands or stratum of nonmagnetic iron, is extremely hard. But when it's drilled, blasted, and crushed, the iron of flake-like structure separates comparatively easily from the waste material. Since the iron is nonmagnetic, however, it can't be recovered by magnetic separation. That's the reason for the flotation process.

• **Many Steps**—The pictures on pages 94-95 show the highlights of the process, but a lot of other equipment is required.

It takes three crushers, a rod mill, and a ball mill to get the jasper rock down to size for the flotation.

There must also be some preliminary cleaning up of the material before it's ready for the final separation of the iron in the flotation cells. This preliminary separation is done in two cyclone separators that remove part of the silica and all of the slime, and a densifier that removes most of the water used up to that point as a carrying agent.

After the concentrate comes out of the flotation cells, most of the remaining water is removed by means of a



A Mile and a Half...and All Downhill

The picture above shows the rugged flank of a mountain in Chile. The diagonal streak is a 1½-mile-long penstock carrying water from the mountain top down to the valley to drive the turbines of the Los Molles power plant, supplying electrical energy to the Province of Coquimbo.

This penstock posed a special problem. From the point on the mountain where water enters the penstock down to the discharge end there is a drop of 3800 feet. As the water rushes downward through the penstock it builds up terrific momentum. The engineers designed the downstream penstock for a total pressure of 1980 lbs per sq. in., including surge pressure, and required

test pressures running as high as 3500 lbs per sq. in.

Such high pressures call for strong pipe. And great strength can mean great weight. But shipping costs, as well as the difficulty of handling pipe as large as 30 inches in diameter on this mountain, made it important to keep the weight as low as possible. The designers solved the problem by using Bethlehem pipe made of Mayari R.

Mayari R is a special Bethlehem steel about 75 per cent stronger than ordinary carbon steel. The use of Mayari R in this penstock reduced the weight

by 386 tons, or about 30 per cent. The Mayari R pipe, with its thinner walls, was easier to handle and to weld, and cost much less to ship on the long journey from Bethlehem's Steelton, Pa., plant to the job location.

Besides its superior strength, Mayari R has excellent resistance to atmospheric corrosion. In addition to penstocks, its uses include bridges and other stationary structures, and railway freight cars, trucks and trailers, crane booms, and other movable equipment, where the advantages of lighter weight are especially marked.

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vacuum drum filter, which uses the synthetic textile saran for the filter.

• **Power**—In the preliminary operations, screens are used before each crushing and sizing to separate out the undersized material and bypass any unnecessary use of power. For power, in the form of electric energy, is a highly important factor.

It takes three times as much power to produce one ton of beneficiated jasper ore as it does to produce one ton from an underground mine.

• **Manpower**—The Humboldt setup is largely a pushbutton and automatic affair, however, and aside from a few maintenance and other employees, it needs only four men for actual operation. The one vital point where mechanical gadgets have to step aside for the human touch is when the bubbles holding the iron are skimmed off the flotation cells (final picture, page 95). It takes an experienced metallurgist to tell by the size of the bubble and the thickness of the froth, whether he's recovering as much of the iron as possible, whether he has just the right mixture of jasper, reagent, and water.

• **Costs**—Like all mine operators, the Humboldt owners are understandably mum on plant operating and product costs. But it's a sure bet that the plant location (a quarter mile from the mine) and the efficient methods give Humboldt a comfortable margin. That margin will more than amply cover the cost of sintering the present product and would be ample if it were to be pelletized (the fine concentrates have to be "agglomerated" in one way or another in order to be fed into the blast furnaces).

Even at this early stage of full-time operation, Humboldt has demonstrated that jasper beneficiated ore can be competitive with direct shipping ore.

Shipping of the fine concentrate before it's agglomerated is something of a problem (taconite is mostly shipped in pelletized or sintered form). But experimentally, Humboldt's product will be water-shipped to Detroit and sintered there before being introduced into Ford's blast furnaces. To bypass the problem of the shifting around of the fine powdery concentrate with the movement of the boat, it will be shipped along with other coarser ores.

III. Multiplying by Addition

But Humboldt's pioneering 250,000 tons a year of jasper beneficiated ore are a long way from that 40-million-ton flood that's due in 1970.

There's plenty of jasper around, though, and Cleveland-Cliffs' nearby Republic mine has proved reserves sufficient for 40-million tons of concentrate over the years.

Cleveland-Cliffs is investing some

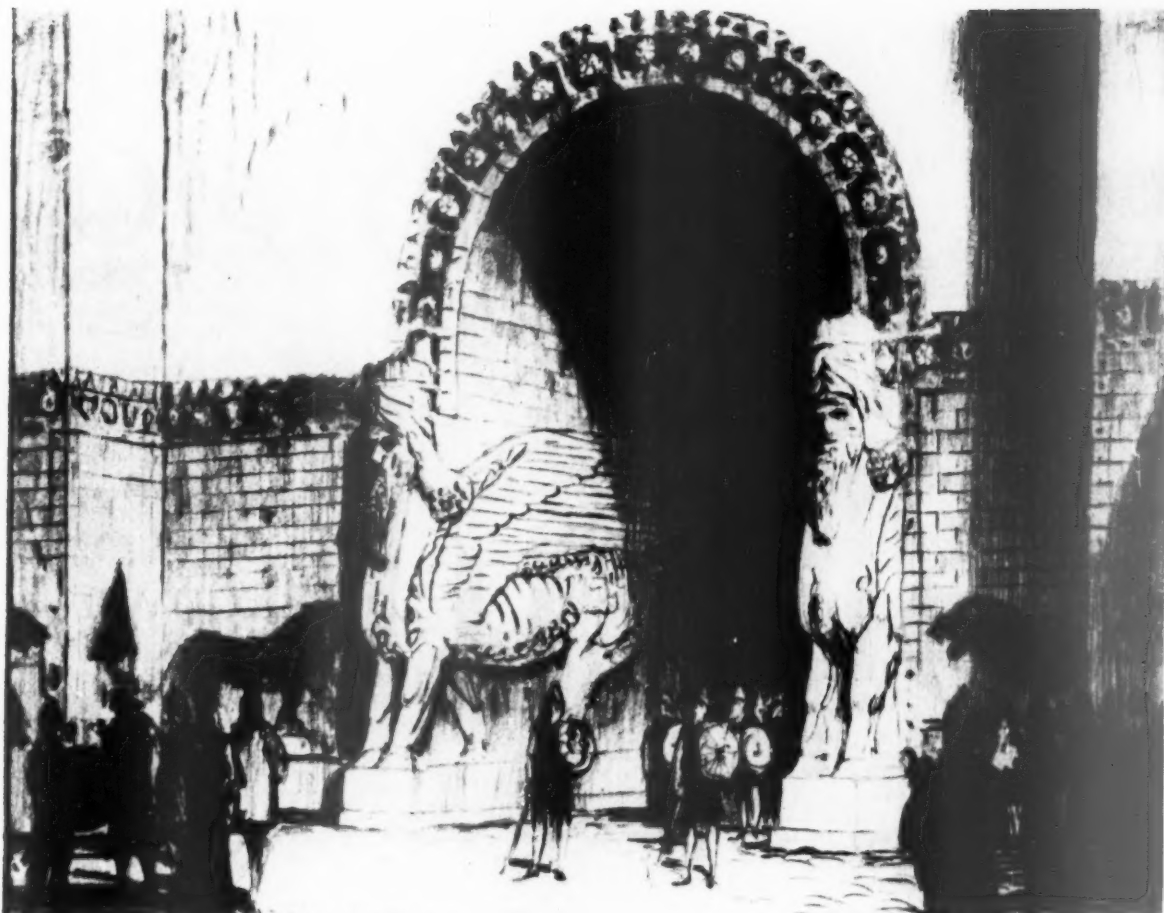


Illustration courtesy of *ENCYCLOPAEDIA BRITANNICA*

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Ancient Assyrian palace gateways were constructed of sun-dried clay brick. It is quite likely that those built during the 8th or 9th century B.C. were designed as shown above. The arch served both as a practical covering and as a means for decorative embellishment. The two flanking man-headed bulls probably had a religious significance ... acting as guardians for all that was within.

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--	--

\$14.5-million in a beneficiation plant at Republic to produce 550,000 tons a year of pellet-concentrate. Plans for the pelletizing plant, using a new type of pelletizing furnace, are out now for bids. Expectations are that the beneficiation plant will be in full production by early fall of 1955; until magnetic oxide conversion becomes practical, the Humboldt flotation process will be used.

Thus, by the end of 1955 the Humboldt and Republic plants together will be producing 800,000 tons of iron concentrate—more than 1953's total production. And in the background is Cleveland-Cliffs' Tilden mine, with reserves counted in the hundreds of millions of tons—but that's a different kind of ore for which a new process is being sought.

• **Taconite**—Cross the upper end of Lake Superior and you find similar activity in Minnesota. Minnesota's taconite beneficiation plants will add another 2.5-million tons of output (twice 1954's total estimated production) by the middle of next year, when Reserve Mining gets into operation some units of its Beaver Bay plant (now called Silver Bay). An additional 14-million tons will come from Reserve in 1956.

At present, Reserve—owned by Armco Steel Corp. and Republic Steel Corp.—gets all its output (257,000 tons in 1953) from its Babbitt plant. Its investment will be in the neighborhood of \$300-million by the time its plants are producing the planned 10.5-million tons of iron pellets around 1970.

• **Town Builders**—Eric Mining's Aurora plant now has 200,000 tons capacity, and its construction program also calls for spending more than \$300-million for an eventual 10-million-ton annual output. It figures four to five years are needed to get into operation with half of that capacity. Eric, like Reserve, is building a whole town, along with a railway, power plant, and loading facilities in addition to the beneficiation plant. Reserve, in fact, is building two towns.

U.S. Steel's Oliver Mining is standing pat for the moment on its 500,000-ton a year pilot installations near Evelyn, Minn. By 1959, it figures, it will have enough information to go ahead with its own 10-million-ton plant.

IV. Bumps on the Road

This prospective expansion is not all a matter of building. There are enough hurdles along the road to keep a lot of researchers busy.

• All the taconite now being beneficiated is the type containing magnetic iron. Taconite has to be ground down much finer than Jasper—



HAPPY HEALTHY WORKERS ARE BETTER WORKERS

Ever think about the Breakfast Table when selecting an Industrial site?

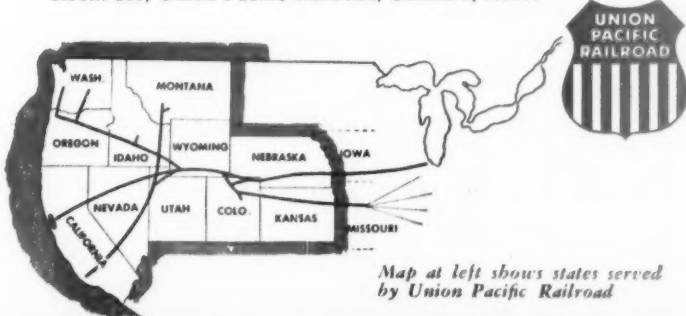
TRUE OR FALSE, it's a popular belief that most family squabbles start simmering over the morning coffee cups. Don't ask us why. Maybe it's because we men folks are apt to be a bit grumpier in the early hours. Anyway, the "lord and master" who slams the front door doesn't tackle the day's work with the same spirit as the man who leaves home with a smile. Happy workers are better workers . . . more productive workers.

What makes happy families, happy workers? We think environment is a big factor. Friendly neighbors, outdoor recreational spots, good schools, a healthful climate, plenty of room for the kids to let loose . . . all have a bearing on domestic tranquility . . . on the quality of a man's work.

So when considering a site for factory, assembly plant, warehouse, or whatever it may be, we suggest concentrating not entirely on available materials, power, labor, or even transportation, important as they are. Give some thought to the human element, too.

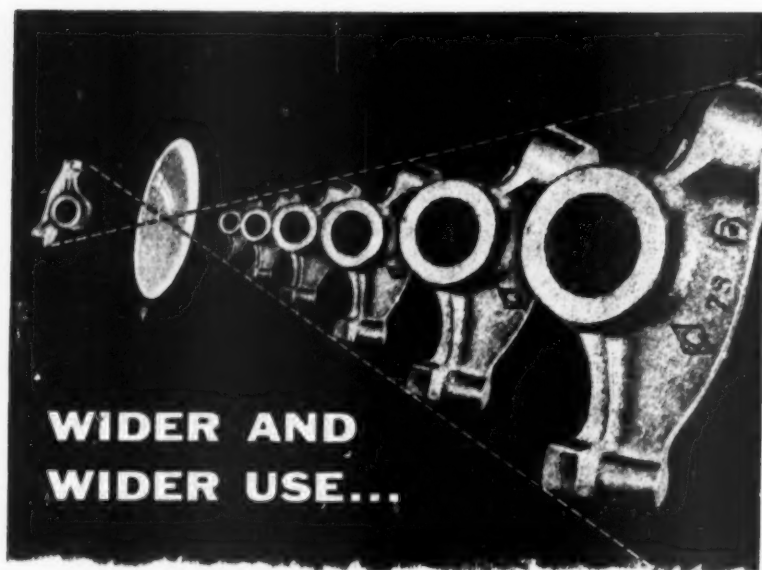
We recommend the "Union Pacific West" as a vast area where can be found a site not only to meet your essential needs but also provide the things that go to make healthy, happy workers . . . *better workers for you.*

For complete and confidential information regarding available industrial sites, write Industrial Development Department, Room 320, Union Pacific Railroad, Omaha 2, Nebr.



Map at left shows states served by Union Pacific Railroad

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You will find many applications for Pearlitic Malleable castings—particularly as a replacement for forgings, stampings and weldments—where reduced weight, less machining time, fewer assembly operations and better appearance are important production and sales considerations.

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COMPANY
Cleveland 6, Ohio

nearly five times as fine—but the added cost of this is offset by the recovery of the iron by magnetic separation, relatively easier than flotation. All the companies have ample magnetic reserves, but they're looking for a cheaper way than flotation to get iron from the nonmagnetic taconite of which there is an almost inexhaustible supply on the Minnesota iron ranges.

• The best and cheapest way of pelletizing the fine concentrates hasn't been finally determined. For its Silver Bay taconite, Reserve is testing a different type of pelletizing furnace from the one Cleveland-Cliffs is planning for its Republic installation. Erie uses still a third type, and Oliver has something entirely different, called a nodularizing kiln.

• The high power cost is turning engineers' eyes toward Ohio experiments in increasing load capacity of transmission lines—and the adaptation of atomic energy to civilian use.

COMMODITIES BRIEFS

Stockpiling policy finally got its promised new look last week. The Office of Defense Mobilization gave orders to start buying lead and zinc. Demand and prices of both metals already picked up smartly after last March's announcement of new higher goals; many observers feel that more increases may come now.

• Delegates from Far Eastern rubber producing countries are slated to visit the U.S. next October. The object: a first-hand look at this country's rubber manufacturing industry, instigated by U.S. manufacturers' complaints that much of the imported natural rubber is of poor quality.

• Cotton textile men are still hoping for an improvement in business later this year. Production in the first half was cut back sharply. According to W. Ray Bell, president of the Assn. of Cotton Textile Merchants of New York, this may mean that "price cutting has been abandoned as a typical industry policy in favor of production curtailment. This is characteristic of the final phases of textile recessions."

• The plot thickens. For reasons unknown, Washington has been taking huge quantities of mercury from Spain and Italy. As a result supplies on the open market have just about dried up (BW-May 15 '54, p. 54). Now the Commerce Dept. has also clamped down on exports of mercury; starting this month, specific export licenses are required for sales to all countries except Canada.



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Packaged AIR CONDITIONERS

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Cool, fresh water always... beautiful modern design... G-E 5-Year Protection Plan...dependable G-E refrigeration.



The search for new, frothier cocktails at London's International Cocktail Competition gave the industry an opportunity to test consumer preferences, try out sales slogans. American competitor Joe "Popo" Galsini of Los Angeles (right) mixed his own entry, the "Jaguar."



TOO DRY. Phyllis Burke, a U. S. Judge, had lady's taste for exotic drinks.

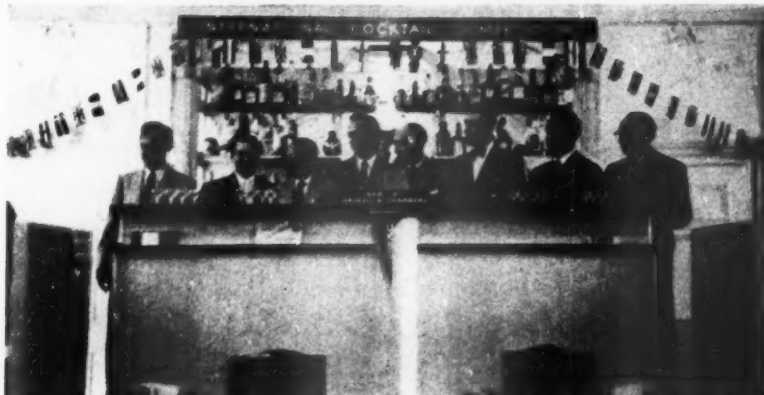
International Contest



TOO SWEET. Josiah Wedgwood, pottery man, was one of two businessmen judges.



PLEASANT ENOUGH. P. J. F. Cocks, former Royal Cavalry major, judged semi-finals.



PROFESSIONALS were enlisted to mix the 2,000 cocktails entered.



U.S. COMPETITORS got to semi-finals, walked off with handsome trophy.

2,000 New Cocktails

Ever since an American Revolutionary barmaid stuck a feather in a customer's drink and called it a cocktail, people have been thirsting after new, more exotic cocktails. In London recently, the cocktail got fresh impetus when several hundred people crowded into Monico's Restaurant to witness the libations that professional bartenders entered in the International Cocktail Competition. The competition, held every two years, was sponsored this year by the United Kingdom Bartenders Guild.

• **Motives**—A few of the spectators had come just out of curiosity, but the majority—liquor manufacturers, salesmen, distributors, account executives—came to find out what new cocktails people would be drinking and buying next year—and the year after that.

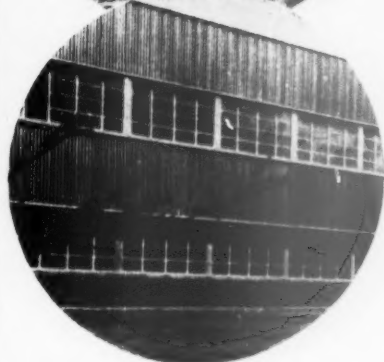
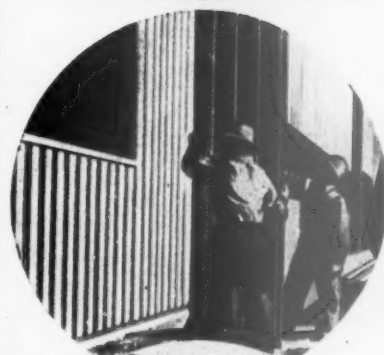
Competition judges clucked over the

2,000 cocktails that 400 professional bartenders from 19 countries served up, while liquor officials cased through the crowds watching for consumer preferences, taste trends, and new slogans for next year's sales campaigns.

• **Laboratory Test**—In an industry always sensitive to new marketing angles for its products, the competition provided an opportunity to test long-range predictions about people's drinking habits.

Contestants were limited to no more than two spirits and two liqueurs in each drink. They could not duplicate any of the 8,000 recipes from previous competitions. Cocktails were judged in a series of rounds, with four judges for each round of four cocktails. A final panel of six, including four cinema personalities and two businessmen, chose the winners: the Roberta May (vodka,

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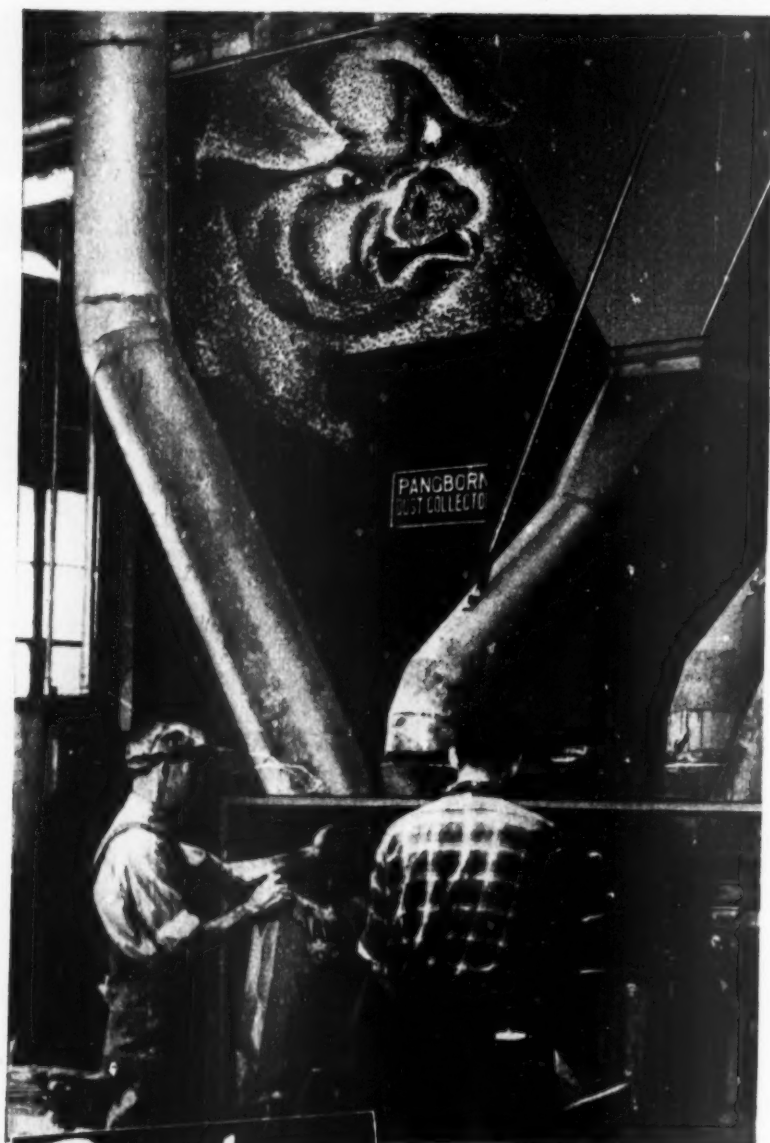
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PANGBORN'S 50TH ANNIVERSARY • 1904-1954



FINALS JUDGE Jacqueline James, now in London's Guys and Dolls, disclaimed knowledge of cocktail lore.

rum, orange squash); Devon Paradise (gin, rum, orange squash); and My Sister's Dream (maraschino liqueur, Persico, pineapple juice).

• **Bright Future**—Most industry speculators at the London competition said they saw a bright future for the cocktail. One fact that emerged: People will be drinking more vodka. The prize-winning Roberta May and the popularity of such drinks as the Bloody Mary (vodka and tomato juice) and the Screwdriver (vodka and orange juice), said one spokesman, indicate a trend toward simpler, more imaginative uses of vodka. Asked why vodka has become so popular, one manufacturer said: "Some people like it because it's unconventional. Others think it reduces embarrassment from liquor breath."

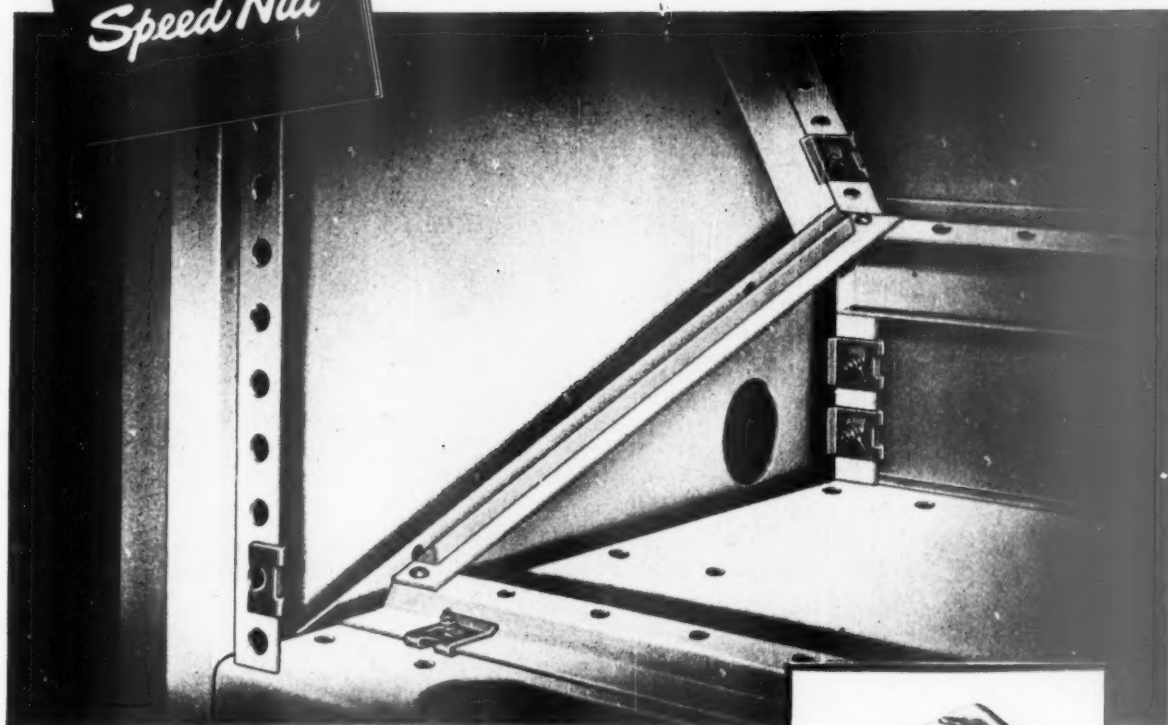
In the U.S. vodka so far has made most converts out West. G. F. Heublein & Bro., Inc., reported 40% of its vodka sales in California alone. That fits in with the general Western taste for more bizarre drinks uncovered in a recent industry survey, which the trade figures stems from casual entertaining.

How important cocktails are to people's drinking habits is a matter of what figures you use. Of the 73-million cases of liquor produced last year in the U.S., according to the 1954 Handbook of the Liquor Market, some 10% to 15% probably went into cocktails.

• **Drinking Habits**—Will London's new cocktails revolutionize the industry? Said one trade source: "They might. At least the competition provided a laboratory for people's tastes." But there seems to be general agreement in the industry that basic drinking habits persist until wrenched out of place by strong industry promotion. As one distributor puts it: "If the liquor industry backs a new cocktail, people will drink it."

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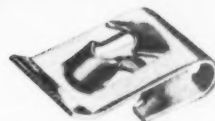


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In Canada: Dominion Fasteners Ltd., Hamilton, Ontario. *In Great Britain:* Simmonds Aerocessories, Limited, Treforest, Wales. *In France:* Aerocessaires Simmonds, S. A., — 7 rue Henri Barbusse, Levallois (Seine).



WHITNEY STONE, president of Stone & Webster, has steered his company into an engineering contract for a nuclear power reactor. The company's fee will be only \$1; but Stone thinks it's a good bargain, for . . .



His Engineers Will Meet Atomic Power

Last week, several top-flight engineers sat down around a conference table in the Boston office of Stone & Webster Engineering Corp. They met for the usual give-and-take discussion that is the first step in nearly every engineering assignment the company has ever handled for a client. But, this time, the project on hand was enough to make any outside consulting engineer green with envy.

Stone & Webster Engineering had landed the contract for the architecture and engineering of the nuclear reactor that will help run Duquesne Light Co.'s atomic power plant at Shippingport, Pa. (BW-Jun. 5 '54, p100). Its job is to work out the details that will go into construction of the reactor's foundation, housing, and inner workings such as fuel-handling equipment. Actually, S&W Engineering will be a subcontractor under Westinghouse Electric Corp. which has the over-all responsibility for the reactor's development, design, and construction.

• **Bargain**—S&W Engineering is a subsidiary of Stone & Webster, Inc. At the parent company's headquarters in the Wall Street section of New York City, much of the credit for getting the reactor contract is given to Whitney Stone (cover and above), president of the sprawling Stone & Webster organi-

zation and son of its co-founder, Charles A. Stone.

When the Atomic Energy Commission asked for bids on the project, S&W had to buck competition from about 90 other engineering consultants, each as anxious to land the contract as S&W. A well-known horseman, Whitney Stone showed a sharp but fair sense for horse-trading in S&W's bid to AEC. Stone and his top brass offered to do the job on a nonprofit basis—in the legal jargon of government contracts, "... for the reimbursement of actual costs from government funds, and the payment of \$1 for the services rendered."

Chances are those terms did the trick for Stone & Webster. Whitney Stone feels that the project represents a once-in-a-lifetime opportunity for a consulting firm. The engineering experience S&W Engineering will get from the job will be worth more than the 1% or 2% profit it might have asked for in its bid. Years from now the firm hopes to have a lead on the rest of the engineering pack when atomic power plants become a booming business.

• **Experience**—It's probable that Stone & Webster Engineering was picked for the job by virtue of its engineering ability as well as the parent company's talent for driving a good bargain. S&W Engineering is an old hand in the fields

of electric power generation and atomic energy. In 1925, it built the famous Charles Edgar Station of Edison Electric Illuminating Co. This was the first commercial power plant to use steam at 1,200 lb., then a record-breaking pressure.

During the last war, it was sole developer of AEC's uranium supply and builder of the plants that made Uranium 235, the radio-active raw material of the atom bomb. The Duquesne-Westinghouse project will give the company a chance to combine its skills in electrical generating and atomic energy, and tackle a challenging new field—commercial atomic power.

• **Family**—Stone & Webster Engineering Corp. is just one branch of the whole S&W family. The guiding hand of the organization is Stone & Webster, Inc., headed by Whitney Stone. The head company sets up and coordinates policies of the S&W subsidiaries. In terms of business done, the most active branches in the U. S., in addition to the engineering corporation, are:

• **S&W Securities Corp.**: Like any other Wall Street investment house, it handles the underwriting and distribution of stocks and bonds through wholesale or retail sales.

• **S&W Service Corp.**: In the consulting field, it is the management

How Exxon 402-A wipes out corrosion

**ACIDS ate through
every metal tried
...but could not affect**

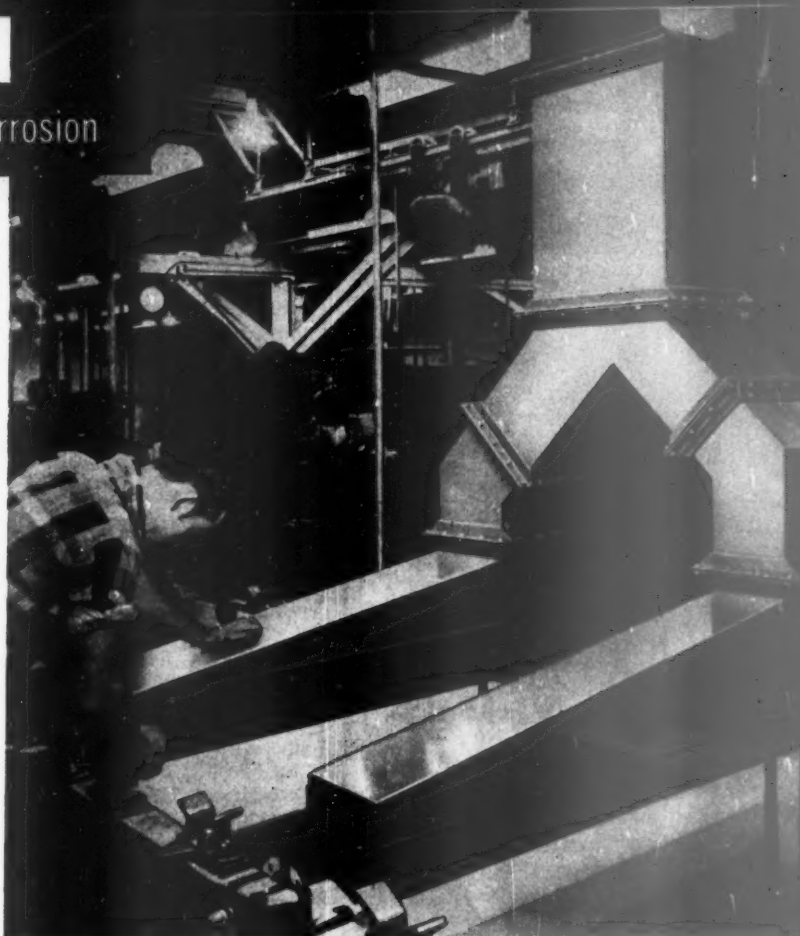
Boltaron
6200

The toughest, most corrosion-resistant metals used failed to hold electro-plating acid fumes at Cannon Electric Company, Los Angeles.

In 2 months, the solution of 33% nitric, 33% sulfuric acid, and 33% fluoride salts destroyed ducts and tanks.

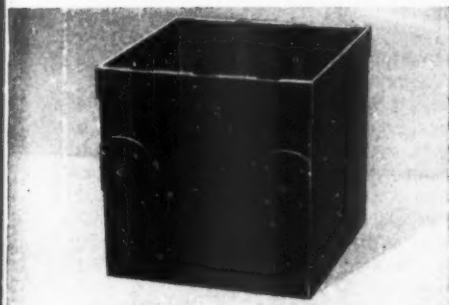
In June, 1953, Plant Engineer Byron Hill installed a completely new ducting system of Boltaron 6200.

It has been in continuous operation ever since. Its present condition is utterly unmarked. Maintenance costs have been wiped out.



Installation by Horace Blackman Co.

Photographs courtesy H. N. Hartwell & Son, Inc., Boston 16, Mass.



★ Eastman Kodak Co., Rochester, reports that Boltaron 6200 remained completely uncorroded by ferricyanide after 3 years, when no other material lasted 3 months.

Installation by Industrial Plastic Fabricators, Inc.



★ A switch to Boltaron 6200 copper-plating rings wiped out corrosion in this equipment at Norris-Thermador Co., Los Angeles. Extremely close tolerances were maintained.

Installation by Horace Blackman Co.



★ For 18 months, sulfuric acid fumes have failed to corrode a Boltaron fume removal system at Electric Storage Battery Company, Fairfield, Conn.



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- **The Badger Process Division** of the engineering company designs and builds plants in the petroleum, chemical, and pharmaceutical fields. E. B. Badger & Sons, Ltd., an S&W subsidiary in London, does the same kind of work for overseas clients.

- **Conversions & Surveys, Inc.**, is the young sprout of S&W's family tree. It offers a packaged deal to utilities that want to convert their customers' service from manufactured gas to natural or mixed fuels.

- **Growth**—Starting with the engineering company, the whole S&W organization has grown enormously over the years. Fresh out of MIT in 1888, Charles Stone and Edwin S. Webster started their consulting firm about the time that commercial power generation was getting a foothold.

Then, the field was brand new in more ways than one. A college graduate with a degree in electrical engineering was an oddity. And hardly any businessman, banker, or plant operator knew all of the ins and outs of organizing and running a big electric utility.

It was pretty obvious to Stone & Webster that new station operators were hard-pressed to keep their management and accounting methods up to snuff. So S&W formed its management consultant branch to serve bewildered clients. Later, the company formed its investment house to help finance new power stations.

That same sense of timing made Conversions & Surveys, Inc. a whopping success, although its business has lately slumped a little. The firm hung out its shingle in 1946—as the utilities, mostly Northern operators, were getting a first taste of natural gas from the new pipelines of the Southwest. So far it has converted the meters and appliances of over 3-million customers.

- **Engineers**—Since it built its first power plant, Stone & Webster Engineering has expanded into every field of industrial construction except two. The exceptions are highways and housing. S&W doesn't touch either, except to round out a much bigger job such as the atomic energy plant at Oak Ridge.

Last year, the company had more than 115 different consulting jobs covering design and construction in the works. For the sake of bookkeeping, the company divides its work into two fields: electric power stations and industrial projects. The industrials in 1953 covered commercial buildings, paper mills, food product units, and a carbon-electrode making plant.

S&W Engineering makes sure it gets a share of firsts in the industrial as well as the power field by keeping a battery of diverse experts on its engineering staff in Boston. Most jobs—commercial buildings, chemical plants, or nuclear reactors—are the result of combining several different specialties such as chemistry, structures, hydraulics, building service, and power. You pick the right combination to fill the needs of the work. Too, S&W Service Corp. might have a hand in the preliminary planning of an engineering and construction job.

- **Methods**—Whatever a client's special field, S&W Engineering's consulting methods all follow roughly the same course:

Say you're a utility operator, and think that a thriving suburb in your area rates a new substation. Probably you will have S&W Service Corp. survey that market for you—although its services aren't necessarily part and parcel with those of the engineering firm. It will study the growth of the town, the customers' habits in appliance buying, the cost of the land for the new station, and the best methods for financing it.

At the engineering company, a team of specialists will make a technical study of your utility's needs, and draw up a preliminary plan for the station, and its tentative construction costs. That goes back to you the client. At this point, you may or may not tag S&W for the job. The client pays for the preliminary work, regardless of who gets the construction job.

If S&W Engineering gets the construction award, it prefers cost-plus fee contract. Ordinarily, S&W Engineering likes a contract that includes both the design and construction. But when it gets a contract for engineering work alone, it later supervises the construction done by an outside contractor. That way, there will be a correct interpretation of S&W's design and less chance that a plant might go haywire at the last minute.

- **Team**—The actual engineering for the station is turned over to an engineer in the mechanical division of the Boston office. He's responsible for the design, and heads an engineering team that includes specialists from other departments such as electrical, structural, and power. The differences in their engineering views are mostly reconciled through frequent conferences. There, the aim is to keep costs down and yet not hamper the efficiency of the plant.

Finally, the Boston office assigns the work to one of its construction managers who, chances are, has worked with the client before. There is also a job superintendent, who handles the on-the-spot details of the construction.

- **Back for More**—Years after its project is finished, a client often comes back

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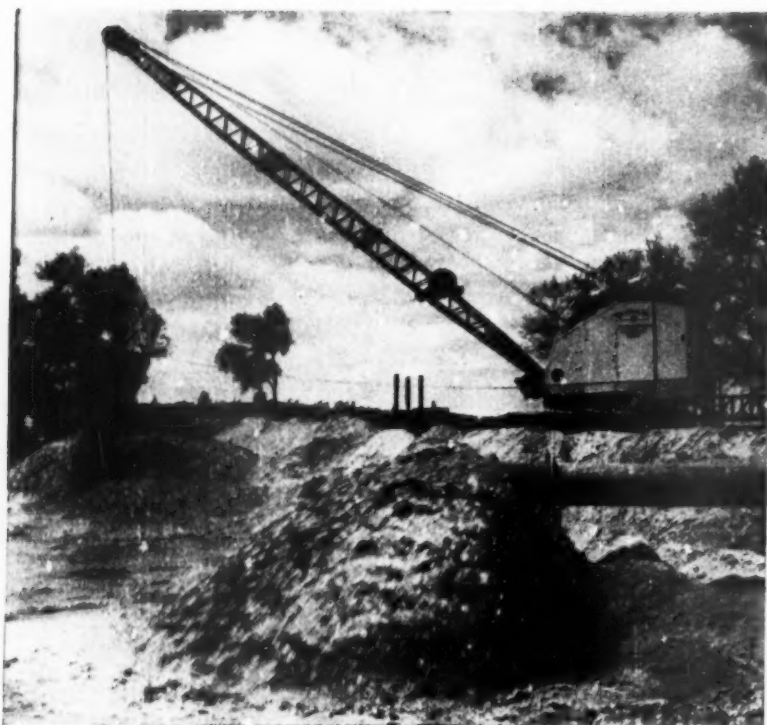
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with more business for the service company. Some customers are full-time clients of the service company. Around 30% of S&W's management consulting is done through long-term contracts.

The consulting staff of S&W Service Corp. will advise on nearly every phase of a company's organization, whether it's a long-term or spot customer. The staff is equipped to help on tax and dividend problems, office and paperwork methods. It will even help find a new officer for a company that needs one.

• **The Boss**—The presidency of Stone & Webster, Inc., was probably inevitable for Whitney Stone. He joined the firm after graduating from Harvard, and came up through the ranks to the top job in 1930. No technician by education, Stone frankly admits he is often lost among the shop talk of his engineering officials. To get their jargon across to him, they must first put it into layman's terms.

As a salesman for S&W, he is quiet but effective. Stone, one acquaintance has said, is that rare kind of Bostonian whom most non-New Englanders take to immediately. He can be persuasive, but never uses a salesman's pitch.

In his general management policies, he sticks close to the original precepts of the founders. Besides making good advertising copy, the S&W virtues of conservatism, honesty, and integrity are obvious in the firm's management. Most of the S&W engineers start with the company and stay with it. Stone follows a policy of not bringing in outsiders at medium- or top-level jobs, especially in engineering. As he sees it, that gives the operating personnel a chance to develop as a team, a must in the consulting business, which calls for close coordination.

Add a Dash of Sulfur, Cut Grinding Chores

For years, most users of steel have scorned any product containing more than a trace of sulfur. Large, uncontrolled amounts of sulfur usually mean shoddy steelmaking and products unfit for most uses.

Now, however, Latrobe Steel Co. is putting sulfur additives into its tool steels, apparently convinced that this material has a place in the fiercely competitive tool steel business, in which the company is a major supplier. As evidence of this belief, the company is replacing its entire warehouse stock of conventional tool steels with the new types.

While steelmakers generally consider sulfur an impurity, they do add it to certain types of bar stock and other shapes to make them easier to machine. Screw machine users find that it helps

How to get rid of industrial fumes



American Blower Fans help get rid of fumes in this catalytic fume disposal installation at a modern chemical plant.

Revolutionary, new Catalytic Combustion process uses American Blower Fans to help convert hazardous industrial fumes to odor-free, color-free gases

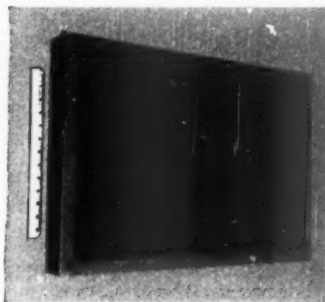
An ingenious, low-temperature oxidation process developed by the Catalytic Combustion Corporation, Detroit, Michigan, uses American Blower Fans to help convert organic industrial fumes into odorless, colorless (and harmless!) gases — plus useful heat energy.

The secret of this fume-destroying system is the Suter-Ruff Catalytic Element: a closely packed mat of heat- and corrosion-resistant metallic ribbons, coated with platinum alloy, and conditioned to produce catalytic action.

Catalytic Combustion occurs when burnable fumes are passed through this catalytic element. Fume destruction is complete, whether fumes are present in traces or heavy concentrations.

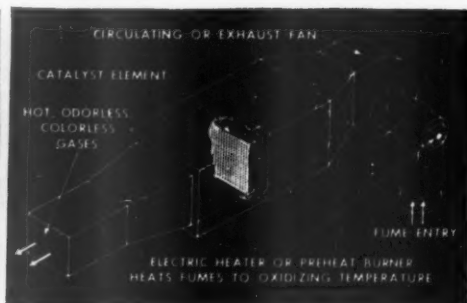
Good velocity and distribution of fumes through the mat is a *must* for effective use of the entire catalyst area. Catalytic Combustion Corporation relies on American Blower Fans in its installations to do this important job; they've found that American Blower Fans are efficient, long lived, quiet in operation.

If you have an air-handling problem, feel free to call on American Blower engineers — any time. Just phone your nearest American Blower or Canadian Sirocco Branch Office.



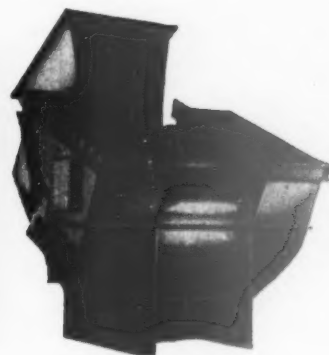
Suter-Ruff Catalytic Element

Small in size, the Suter-Ruff Catalytic Element is capable of handling large volume. During fume oxidation, temperatures jump as much as 600° F. — furnishing heat that may be utilized in manufacturing.



The Catalytic Combustion Process

For catalysis to take place, fumes must be preheated with an electric heater or preheat burner. American Blower fans provide the needed mixing, circulation and exhaust of fumes at elevated temperatures. Catalytic Combustion eliminates fire hazards, condensate in ducts, air pollution.



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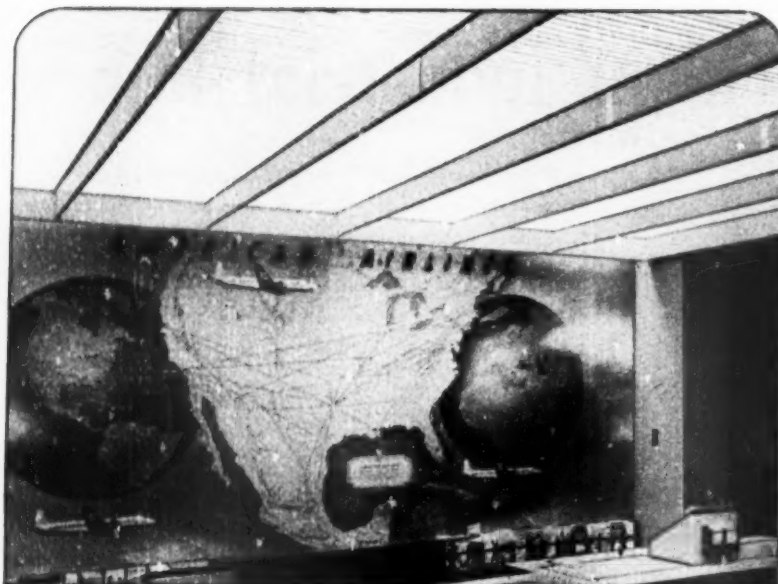
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them. However, steel men still feel that the additives hurt the steel's other properties. That's why production men confine such steel to parts where a lot of machining is required and where demand for other properties isn't great.

• **Incentive**—Latrobe started experimenting with sulfur additives in an attempt to lick a difficult problem in finishing formed tools. Conventional tool steels left a finish that had to be ground, and grinding even a flat surface is expensive. Toolmakers were trying to get a steel that could be used without a lot of grinding.

Latrobe tried adding some sulfur to a grade known as molybdenum high-speed tool steel. The results were so startling that Latrobe expanded its investigation to other popular grades of tool steel and other types of sulfur additives.

According to Latrobe, the improved qualities for machining in no way affect the process of heat treatment or the mechanical properties of the steel. But tool performance is the payoff. Tools made from the new steel are said to out-perform those of conventional high-speed steel by a wide margin.

• **Acid Test**—While any steelmaker can add sulfur, Latrobe undoubtedly has some secrets of its own. It has applied for patents on its new steels and has become a licensee of Simonds Saw & Steel Co.—which patented a steel with high sulfur content 14 years ago.

PRODUCTION BRIEFS

Printed circuits, used for some time to eliminate the jumble of wires in radios and other electronic equipment (BW—Aug. 9 '52, p. 56), are breaking into television. Admiral Corp. will incorporate a 44-in. by 7-in. section in its 1955 line of TV sets.

• The seasonal market for liquefied petroleum gas (largely butane and propane) has caused a boom in the building of underground storage facilities (BW—Aug. 15 '53, p. 52), according to the Oil & Gas Journal. There are now more than 100 such caves with a total capacity of 9-million bbl. Another 65 projects planned or under construction will boost the total to more than 14-million bbl.

• Chicken feathers may provide a domestic substitute for Communist-supplied Chinese hog bristles in the manufacture of paint brushes if current research pans out. Rubberset Co., a subsidiary of Bristol-Myers Co., is running pilot-plant tests at its Salisbury (Md.) plant on a synthetic product called Keratin, an extract of chicken feathers.



Sweepings and Storeroom Junk . . .



. . . Are Gold Mine to Hobbyists

Almost every industrial plant has a corporate attic crammed with surplus materials and obsolete equipment. Items are stored away because they seem to have potential use; the stockroom manager just hates to throw them away. But usually, the articles are promptly forgotten. It's difficult to keep adequate records of the attic's contents.

Another thing, it's usually cheaper to go out and buy a new article than to spend days mauling through dust and debris trying to locate the wanted piece. So, after years of expensive storage, the stuff often ends up being sold for scrap.

Minneapolis-Honeywell Regulator Co.—which makes 9,000 different products—was plagued for years with the high cost of storing industrial leftovers. Then,

during the war, M. B. Mills, main plant storeroomkeeper, was deluged with a large quantity of a certain screw that was no longer being used. The screw was the straw that broke the camel's back.

Mills decided to try to sell the screws to plant employees. Early transactions were made from a box kept under a workbench. Later, Mills set up a display case in the main employee entrance, and other surplus items were added. Business began to pick up.

• **Open to the Public**—By 1943, the project was doing so well that the company decided to set up a store in downtown Minneapolis and give the public a chance to buy surplus and obsolete items. The shop turned out to be a natural for hobbyists, and the postwar

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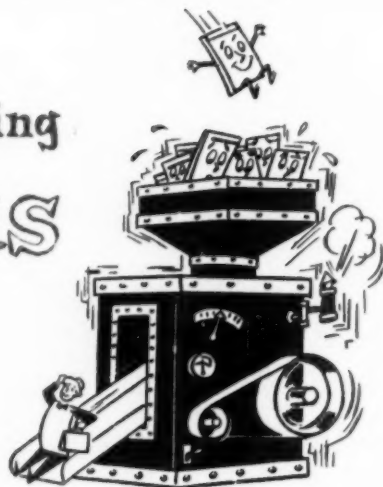
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MULTIWALL PAPER SHIPPING SACKS

do-it-yourself trend has helped keep sales high. Dollar volume has been as high as \$85,000 a year, with \$60,000 the average annual gross—considerably more than what the company would have got from scrap dealers. The store has its own advertising program and uses modern merchandising methods to keep its stock moving.

• **Cleaning House**—Minneapolis-Honeywell cleaned out its attics and dead storage areas to stock the surplus store. The inventory now includes some 10,000 "not wanted" items. These range from aluminum tubes to zinc wheels, cod liver oil (special lubricant), to a life-sized plaster-of-paris statue that used to stand at the employees' entrance.

New items keep coming in all the time. Jesse Pottratz, shop manager, and an avid home craftsman, keeps a register of hobbyists. It contains the names of model railroaders, hot rod enthusiasts, radio hams, and workshop addicts from all over the Midwest. About 250 small manufacturers receive regular notices of new items. One of the store's best customers is the company's own research department.

• **Many Uses**—The things that the customers contrive with the surplus items are almost as diversified as the stock itself. One customer is building an electronic organ. Another is making a miniature one-man band. Still another is using a special relay he found in the store to build a device that rings a bell and flashes a light every time the baby wets the bed.

Two University of Minnesota researchers found in the store some of the materials they needed to make an apparatus that would give an experimental mouse an injection of serum over a 24-hour period. A professor dug up some equipment he needed to build an electronic electrocardiograph.

Teenagers cart off stainless steel and aluminum tubing to soup up their hot rods. Also, the underwater swimming craze has pepped up sales of control valves for oxygen apparatus.

• **Opportunity**—A lot of small businesses patronize the store, too. Surplus zinc wheels—like those originally used in thermostats—inspired one customer to build 1,200 toy wagons which he sold to a Minneapolis department store. Another businessman converted surplus aluminum boxes into amplifiers. And, of course, there's a ready market for obsolete or rejected office equipment such as chairs, desks, dictaphones.

One of the store's most interesting discoveries has been the value of packaging. Sweepings—assorted screws, rivets, bolts, fittings, and some dirt—from the floor around production machinery didn't sell very well until the store got in a shipment of surplus plastic bags. Pottratz put the two together, and sales promptly soared.

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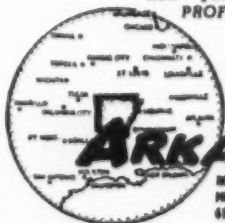


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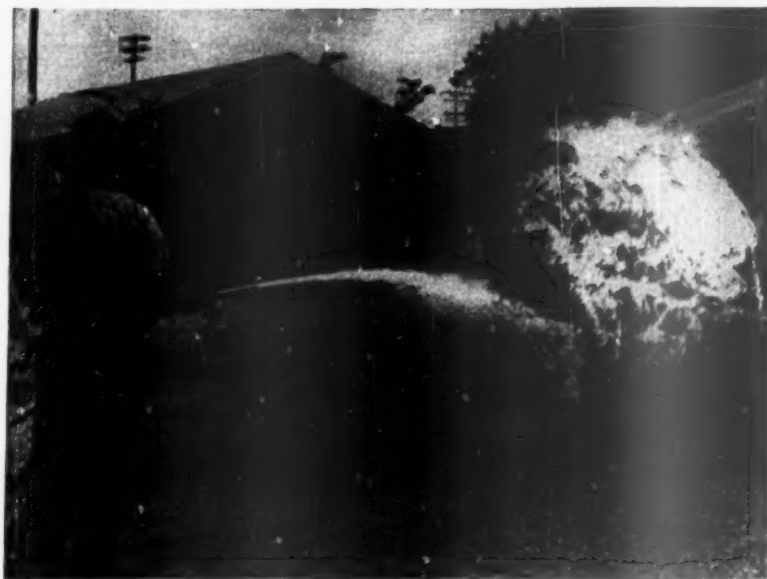
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NEW PRODUCT



Fighting Fire with Unox Foam

At first glance the fellow looks as if he's merely putting out a trash fire in his backyard with the garden hose. Actually he's a fireman demonstrating a new technique. He's beefed up the fire-fighting potency of water with a chemical compound called Unox, and added a special nozzle to shoot the solution out as a heavy foam. The results are causing a stir in fire safety and fire-fighting equipment circles.

Strictly speaking Unox itself is not new. Carbide & Carbon Chemicals Co. has had it on the market for several years. Carbide officials figure they've spent \$100,000 on its development since 1946. The new twist is the foaming of Unox by aeration, along with several systems to make the most effective use of the solution.

• **Blanketing Action**—Unox is a liquid consisting of wetting agents combined with corrosion inhibitors. It reduces the surface tension of water, which makes the water penetrate more quickly. It's added to water to make a 2% solution (2 gal. of Unox per 100 gal. of water) by means of a proportioner jar (above). Proportioners are available for anything from a garden hose up to the biggest fire hose.

Used to squelch gasoline or oil fires, Unox foam literally blankets the gasoline. The watery foam is sufficiently firm to accumulate in a pile on top of the fire. It smothers it so completely that the chance of flashbacks is virtually eliminated.

After it blankets the fire, the foam dissolves. The emulsified bubbles of

the Unox-water solution pass through the hot liquid, cooling it as they sink to the bottom. This cooling effect is so great that when Unox has been used to put out an oil fire, minutes later you can put your hand in the oil and find it only lukewarm.

• **Advantages**—Unox foam has big possibilities in the petroleum and chemical fields, but there are other plusses that make it a good bet for many industries:

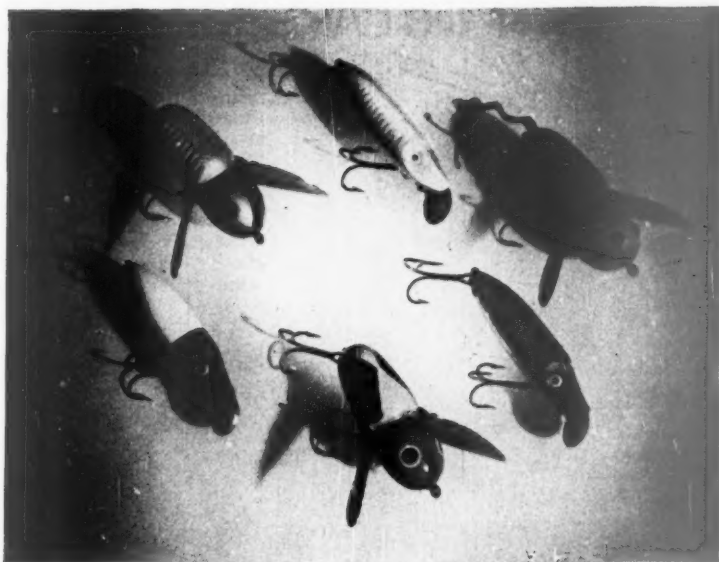
• The water needed to fight a fire can be reduced as much as 60%. This is particularly important to rural fire departments, which have to carry their own water supply.

• Unox can be used with ordinary water, even salt water. Some foam extinguishers can be used only with specially treated water.

• Water damage is kept to a minimum. Cotton soaked with plain water, for example, usually can't be processed, but when a Unox solution is used it can usually be dried and salvaged.

• The amount of smoke and smudge is reduced considerably. As soon as the Unox foam hits the fire, the smoke is replaced by clouds of white steam.

Recent demonstrations showed the foam can also be used as a fluid insulation on oil storage tanks to keep them from getting hot when there's fire in the vicinity. In the test, a 1% Unox solution was fed onto the top of a tank and the foam rolled down the sidewalls in a solid stream. In 35 minutes, while the fire was kept burning



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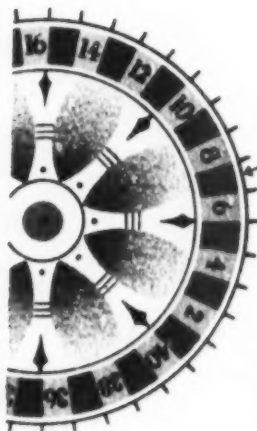


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around its sides, the temperature of water within the tank rose only 5.3C.

• **Source:** Unox Co., a division of McFarland Mfg. Co., 1630 Roberts St., Houston, Tex. (exclusive distributor).



Base for New Paints

The sticky, almost colorless liquid pictured above is called C-Oil by laboratory workers at Standard Oil Development Co. who invented it. It's expected to spawn a host of new products, including highly resistant surface coatings and glass-like plastics.

• **Lasting Gloss**—The oil research firm has been working on it for seven years. Experimental enamels and varnishes using C-Oil as a base are said to have a lasting, mirror-like gloss. Stains and smudges can be wiped off with a damp cloth because the surface is so hard that dirt and dust can't sink in. Even after five years submersion in a harsh chemical solvent, a C-Oil enamel sample still looked like new, still resisted scratching.

Glidden Co. of Cleveland has recently been licensed to develop surface-coatings using C-Oil. If further development proves as successful as past research, SOD feels that its product may reduce the dependence of industrial paint manufacturers on linseed, soya, tung, and other agricultural oils, all of which fluctuate widely in price and supply. With C-Oil, Glidden anticipates better quality control than is possible with oils in use now.

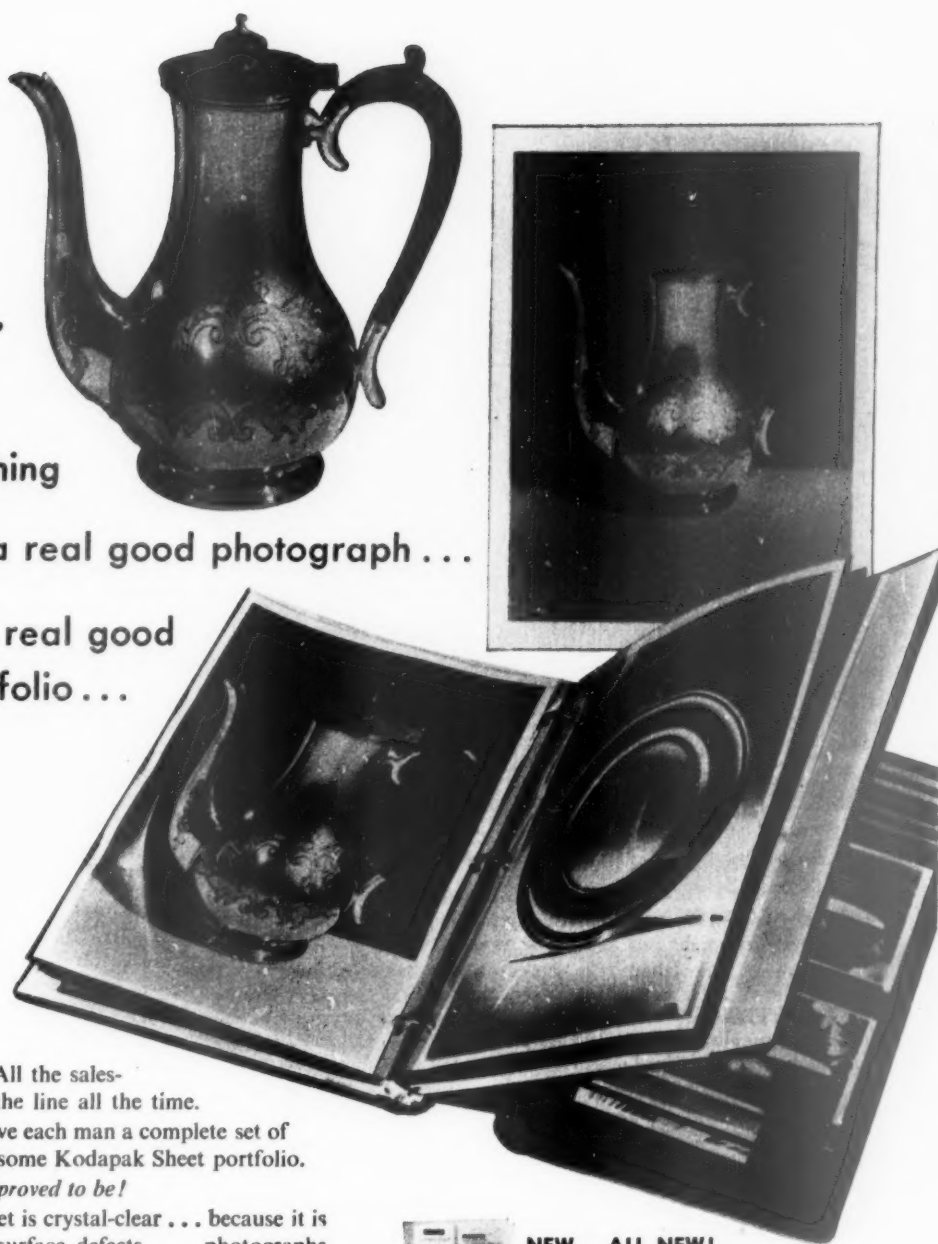
• **Other Properties**—Glass-like plastics that can be machined almost like metal have also been made from C-Oil. Unusual electrical properties indicate that these plastics may have a future in high frequency electronic equipment.

C-Oil is based on butadiene, a petroleum product also used to make one type of synthetic rubber. Semicommercial quantities of the new petrochemical are being produced at Esso

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Laboratories in Baton Rouge, La. It will probably take several months, however, before any C-Oil products reach the market.

• Source: Standard Oil Development Co., 15 W. 51st St., New York 19, N. Y.

NEW PRODUCTS BRIEFS

Micro-twin is a low-cost, portable microfilming machine that combines recording and reading in one unit. It will record documents smaller than bank checks up to single sheets 11 in. wide, 3,700 ft. long. It's manufactured by Bell & Howell Co., Chicago, sold by Burroughs Corp., Detroit 22, Mich.

"Slippery-when-wet" roads, an important factor in many auto accidents, have been the subject of intense research by engineers at Carborundum Co., Niagara Falls, N. Y. Out of the study has come a product known as Highway Safety grain, a special aluminum oxide abrasive to be spread on smooth roads. In a recent test, stopping distance of cars traveling at 30 mph. was reduced one-third on a wet asphalt highway so treated.

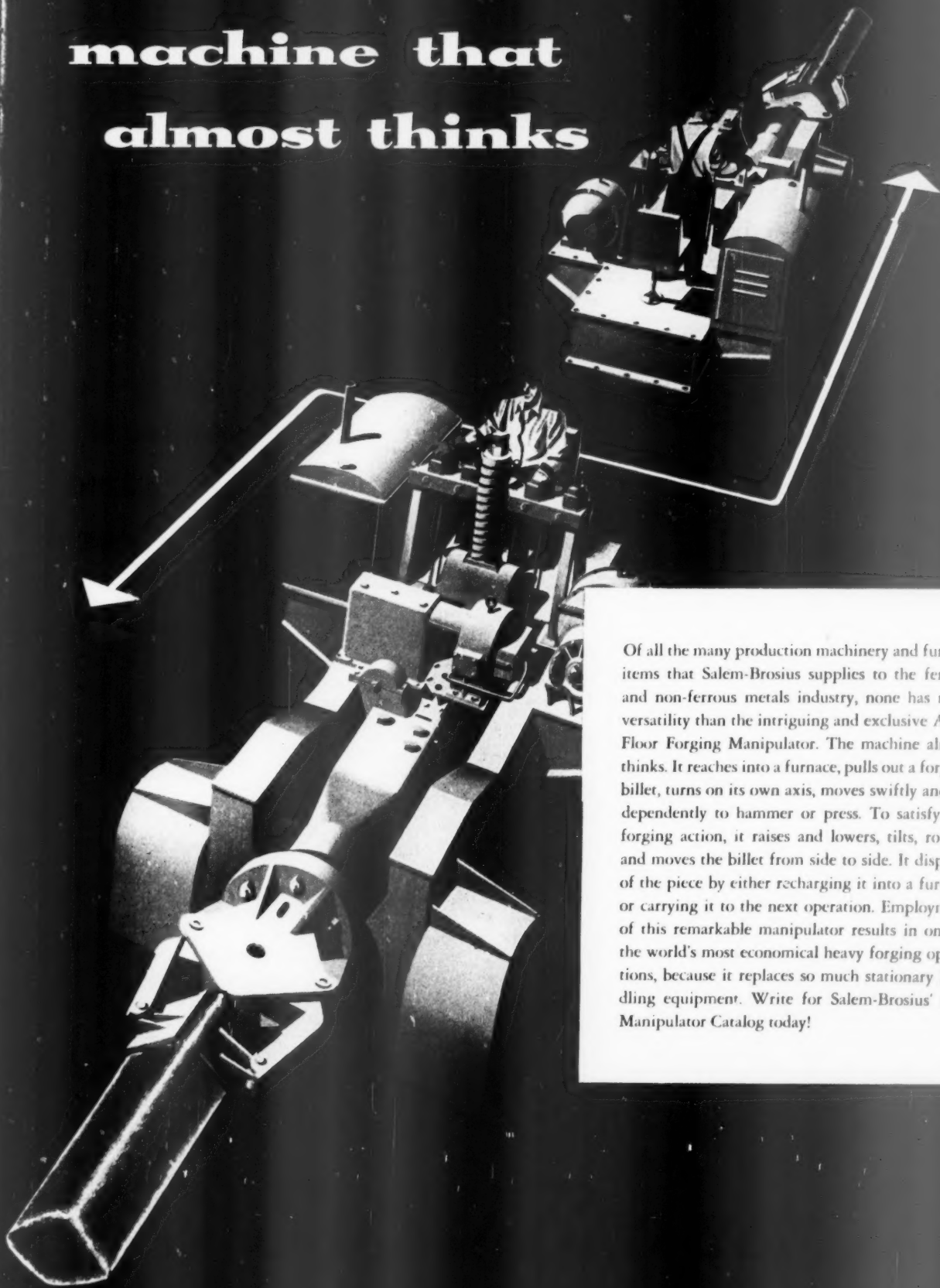
Capsule sodas: Now you can make nonfattening carbonated soda pop, in root-beer, lime-lemon, orange flavors, by dropping a tablet into a glass of cold water. The drops, packaged in metallic foil, require no refrigeration, cost about \$1 for 18. Sold by Pop-Drop Beverage Co., Inc., 910 Pioneer Bldg., St. Paul 1, Minn.

Two plastic pipes, extruded with a connecting web so they can be handled as a single unit, are being produced for use in jet wells, by Carlon Products Corp., 10,249 Meech Ave., Cleveland 5, Ohio.

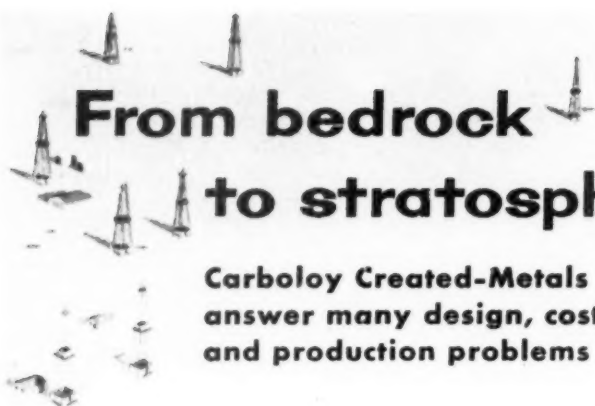
Kissproof garlic sauce, said to retain seasoning value but eliminate after-taste and after-breath, is made by Derrv Products Co., 108 Dupont St., Brooklyn 22, N. Y. The sauce has been test marketed in a few cities, is now being set up for national distribution. A 4-oz. bottle will sell for about 29¢.

Rip guard: Wire-insert conveyor belt for use in foundries has been developed by B. F. Goodrich Co., Akron, Ohio. Ribbons of high tensile steel are laid at intervals across the width of the belt, under the cord-ply. The wires stop the rips that often result when a moving belt is pierced by a sharp object.

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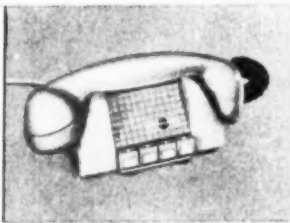
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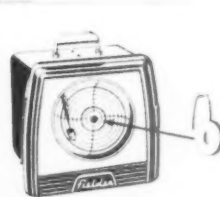
CEMENTED CARBIDES are used here in cold extruding steel. They are also used on such jobs as metal cutting and forming, stone working, mining, oil drilling and woodworking, because they outlast steel many times, permit greatly increased operating speeds.



HEVIMET, 50% heavier than lead, stabilizes the camera in this reconnaissance plane, saving valuable space because of its greater density. Hevimet also gives 40% greater gamma ray protection than lead, making it ideal for many radioactive shielding uses.



PERMANENT MAGNETS replace pop-up buttons and their components in the hook switch on this telephone . . . permitting a simplified one-piece housing. Alnico-type magnets offer lasting, uniform power in small size; enable engineers to reduce costs, improve products.



THERMISTORS, in this electronic recorder, stabilize circuit resistance, improve accuracy and sensitivity. With their negative temperature coefficient of resistance, Carboloy Thermistors permit accurate voltage recording as low as 20 millivolts full-scale.

SETTING THE PACE FOR INDUSTRIAL PROGRESS

The Growing Urge to Diversify

- Almost every big or middle-sized company in U. S. industry is looking for new lines, new markets.
- Businessmen are becoming convinced that diversification is the best insurance against competition, economic slumps, and other imponderables of the future.
- The feeling is so strong that whole industries are spreading out in all directions.

"Every management I know is looking for a small company to buy. I never saw a time when there was so much desire for diversification."

That comment from a Boston investment banker pretty much sums up what *BUSINESS WEEK* reporters found throughout the country this week. If you talk to presidents and board members, executives of big or small business, you find that next to the question of which way the economy is going, diversification gets No. 1 billing as a topic of conversation. In fact, the worry about the economy explains to some extent why there's so much emphasis right at the moment on diversification in industry.

• **Buildup**—But the activity goes back much further than the end of record-breaking boom times and is likely to continue even though the economy turns upward. Since the end of World War II, the question of diversifying outside a single product line, a particular market, or a limited geographical area has become something more than a matter of choice on management's part.

The way things shape up today, you can almost make this exaggeration ring true: Diversify or die.

I. The Changing Times

The reasons behind most of the diversification are logically the old hopes for (1) protection against a decline in one line, (2) a leveling of seasonal production humps, or (3) a hedge against cyclical fluctuations.

But there are other, larger factors at work, too—things that have to do with our changing times.

There was a time, for example, when a man could start a one-line business and make it prosper for his life—and maybe for a generation more. That's not nearly so true today. Few managements enjoy the isolation of geography, for instance. Once a manufacturer of

an item on the West Coast could be pretty sure he needn't worry about intrusions from some Eastern outfit. Not now.

Ideas no longer carry monopoly with them, either. Information gets around fast. There isn't the exclusiveness of capital, providing the means to develop and market a product. Capital is abundant in this era, and no one section of the country or group of people commands it. Though there is much talk about a lack of risk capital for small business, it can be had.

• **Competition**—The upshot is that if a man makes a success with a new product, he finds he has dozens of competitors overnight. The window-type air-conditioning field is an example. There are about 100 brand names on the market, about 50 of them having been added in one year's time. So the original producer ends up with a smaller share of the market than he foresaw at the start.

Of course, he may stick to his specialty for a while, especially if it is a virgin field (such as air conditioning) with plenty of growth potential. But somewhere along the line, he'll realize that if he wants to keep expanding, he must diversify—latch onto other products or onto another company.

Then, too, there is the technology of the day. Technology is changing so rapidly, and the avalanche of new ideas is so great, that what yesterday was a sure-fire product with a great future may be just a has-been tomorrow. Substitutes or better materials can outdate a product or product line quickly.

• **War and Postwar**—Other factors are involved. During World War II, many a company that had been perking along making one product—say, soap—suddenly found out that the government needed shell casings. Much to its surprise, the company also discovered that with its own labor force, building, and management group, plus the necessary

capital, it could switch from soap to shells.

This nurtured the idea that instead of being a soap company, it was a business organization. This realization gave many companies the impetus to start looking around for other things to make.

Later, the postwar boom stuffed money into the pockets of many companies. Their own fields may have been mature, close to saturation. The question arose: What do we do with all our cash? The answer: Get into something else, or diversify widely in our own field.

Roofing companies became construction material companies; woolen firms became textile houses; bulk chemicals companies spread into fine chemicals or antibiotics.

• **Labor**—On top of that, each company felt the need to keep its labor force together. If you didn't use your workers, somebody was sure to lure them away. The shortage of labor, especially of skilled and semiskilled help, has practically become a way of economic life. This condition, in the past, used to exist only for short periods.

Then, too, a few years after World War II ended it became pretty obvious to most businessmen that the U. S. economy could very well be in for peaks and valleys caused by the international situation. Hence, it was wise to put yourself in a position to make either defense goods or civilian products—depending on the mood of the times.

It was this fact that bred General Motors' dual-factory scheme (page 72). For other companies, the answer was diversification.

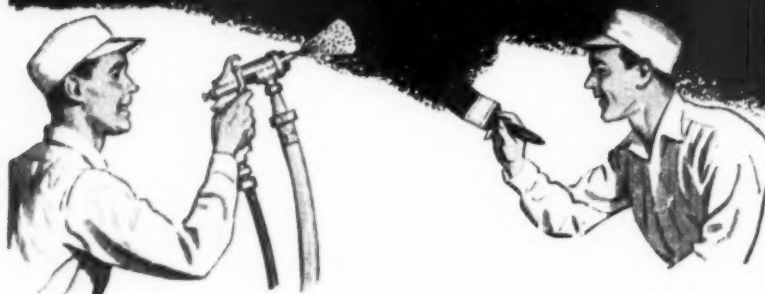
• **Tariffs**—Economically, you can't overlook another fact of life today. The return of high protective tariffs looks like only a remote possibility. Reciprocal trade and ever lower tariff barriers seem much more likely. So companies affected by foreign goods—watch firms, for example—are branching out into other fields.

Finally, as the economy expanded so rapidly, there turned up one thing the businessman never worried much about before: lack of good management. Many a company was able to pull through the Depression, then the war and the lush postwar period, without a drastic change in management. But many are finding today that the kind of management they need doesn't exist internally. Buying another company with good management

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"... classic example is the coal dealer who buys an ice company . . ."

DIVERSIFICATION starts on p. 127

solves that problem. If you talk to management men involved in the host of recent mergers, they tell you that one of the important reasons for merging was to strengthen the management of the larger companies.

II. In All Directions

All of these reasons have squared neatly with the urge of businessmen to take advantage of the great postwar boom. Diversification has thus become almost a criterion of good management.

Diversification also breeds on itself. General Motors, for instance, has moved into the off-the-road equipment business, presumably (1) to make sure it will have something to sell in case of a big public works program during any prolonged recession; and (2) to make use of its management talent in something other than autos and its other lines. It is safe to say that, because of this GM move, any company solely in off-the-road equipment is thinking about adding some other lines. Thus, diversification feeds on itself as it picks up speed.

• **Classics**—Diversification has been going on for a long time. The classic example is that of the coal dealer who buys an ice company. His idea is to counteract seasonal trends. But he may find that that is not enough, for neither the coal nor the ice business is vigorous today. He may have to go further—take steps to counteract industrial trends.

General Mills, for instance, a few years ago decided that the flour business was declining, not growing, despite population growth. Hence, it has moved into many other lines, and is still doing so (although in one case it backed out—appliances).

There are classic examples of diversification to guide businessmen. Rockwell Mfg. Co. is an example. Food Machinery & Chemical Corp., in California, is another. From a single hand sprayer it has now encompassed the entire agricultural field—up to packaging for farm products—plus many other fields.

You can find other examples, many of which go back years and years. Still, many companies, even the big ones, have never shown as much interest in diversification as they are showing today.

• **Spreading Out**—Some, like Republic Steel Corp., have moved from industrial to consumer lines. Republic now has a steel kitchen line and a line of modular walls, and it is said to be

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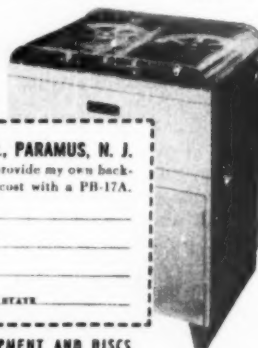
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"... whole towns in New England have been forced to diversify . . ."

DIVERSIFICATION starts on p. 127

negotiating for the purchase of another company that will put it still deeper into the consumer field.

Both Monsanto Chemical Co. and Dow Chemical Co.—firms in a business you would think had enough potential to keep a raft of management and capital busy—have made strides outside industrial chemicals into consumer products. Monsanto has the soil conditioner Krilium, among other products; and Dow has Saran-Wrap.

Such ventures aren't confined to big companies. Seiberling Rubber Co. has announced production this summer of Seilon, a rigid plastic sheeting, which puts it into the construction field.

On the West Coast, Carnation Co. (milk products) has bought a company making products for color photography and the graphic arts. Clary Multiplier Corp., office machines, has added a ball point pen to its products. Packard-Bell Co., one of the oldest TV-radio makers west of Chicago, is moving into air conditioning.

• **Regions**—New England is probably the area where diversification means the most. Whole towns and cities in New England have had to diversify, largely because of the textile move southward. Today, an expert on the subject says, the drop in government business and a general dip in the economy have made diversity even more imperative.

And you'll find that even in areas where diversification comes naturally, there is new emphasis on it. In Cleveland, for example, auto parts makers are scurrying to find new customers and lines—because they believe automobile manufacturers are accelerating the trend toward making more of their own parts. Thompson Products, Inc., big auto and aircraft parts supplier, has made a strong move to get established in the electronics field.

• **Industries**—Whole industries are undergoing shifts. Steel is playing with plastics and new metals. So is copper. The glass industry is girding itself against the inroads of cans and other container materials (BW—Jun. 12 '54, p48).

Oil, one of the lushest of industries, is spreading into petrochemicals. And the coal industry is diversifying in all directions.

In the past two years, Pennsylvania Coal & Coke Corp. (now Penn-Texas Corp.) has gone into oil production, shipping, the manufacture of wire and cable and of industrial equipment, and uranium mining (BW—May 8 '54, p93).

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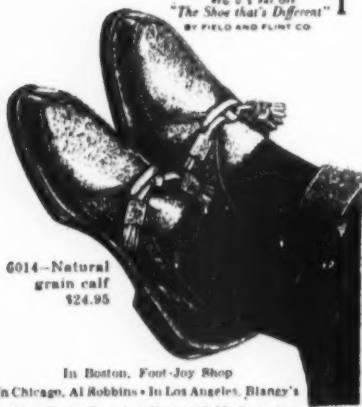
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See Clues on page 178

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THE MANAGEMENT PATTERN

Diversifying: Look Before You Leap

IF YOU TALK to enough businessmen these days you might possibly run across one who had nothing good to say for diversification—that is, making more than one product line or selling to more than one market. But he would undoubtedly be a minority. For it is a fact that today, more than ever before, diversification has become a management byword (page 126).

BECAUSE OF THIS, management should remember that, alluring as diversification is, it has some dangers—or, at least, disadvantages—that can be obscured in the haste to venture outside the old field. Let's list a few:

Admittedly, management is fascinated with the idea that its company is an aggregate of talents, that it has the power to accomplish just about any goal—just as an army wins wars, builds bridges and dams, administers health programs, governs occupied countries.

But the idea can go wrong in business. For instance, Solar Aircraft Co. (BW—Mar. 20 '54, p. 50) readily admits that it fell into a diversification trap. It had a management, labor force, and engineers. After World War II, it tried to get into nondefense lines. The move didn't work. Management found that its particular type of engineer was too good, that the consumer lines it picked didn't demand the high degree of engineering skill—so products were vastly over-engineered, and costly. Today Solar is diversifying again, but more slowly and closer to its talents.

Or take markets. There's a trend among companies to protect themselves by selling in two different markets—industrial and consumer. A company selling, say, to industrial customers can trip up if it doesn't prepare a new marketing program when it enters a product in the consumer field.

There is probably no good reason why a company can't be both an industrial and consumer producer. But if it decides to take that route, it should figure into the cost and planning of the venture a whole new, separate marketing organization. Often that means new people, rather than remolded company personnel.

THERE ARE ALSO organization difficulties to think about. A company ought to be sure that, once diversification is decided on, its goals are clear cut. If that isn't done, you find the different parts of a company at right angles—with politicking, infighting, lack of co-operation.

On top of that, management accustomed to one field usually finds it has to set new organizational policies in another. Delegation of authority and perhaps responsibility for profits, especially to those who are going to run a new line, becomes much more necessary. This usually requires a major shift in a company's internal system of management controls.

MANAGEMENT, especially of smaller companies, should also be pretty hardheaded about diversifying. For instance, diversification takes two important things: money and attention.

In some fields—say, specialty textiles—there is still ample room in the economy for one-product firms with the skill to produce quality lines at a good price. Now, if such a company gets an idea to diversify, it ought to understand thoroughly—and figure it out in dollars and cents—whether the move will bring a return larger than it could get by other investments.

The return should be pretty large, too, because the attention management has to pay to a new venture always exceeds the first estimate. In a smaller company, that extra attention often cuts the time management has left to keep an eye on the old end of the business. There is the added danger of supporting a lemon too long—at a cost high enough to wreck the whole firm. It takes a big company to afford mistakes.

Finally, to diversify properly usually demands that your old line and the new one have some common element—production, marketing, geography, industry. As a matter of fact, many businessmen contend that without this common element, diversification is an uneconomic venture. It may be true that a business is like an army, but you don't become a General Motors-type company overnight.

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Motor Repairman Uses KLIXON Protectors To Prevent Motor Burnouts

READING, PA.: Samuel Augustine, owner of the Augustine Motor Repair Shop, is long familiar with the performance of KLIXON Inherent Overheat Protectors.

"After operating a motor repair shop for the past 25 years, I've definitely found that Spencer Thermostat's Klixon Protectors prevent motor burnouts."

The KLIXON Protector, illustrated, is built into the motor by the motor manufacturer. In such equipment as refrigerators, oil burners, washing machines, etc., they keep motors working by preventing burnouts. If you would like increased customer preference, reduced service calls and minimized repairs and replacement, it will pay you well to ask for equipment with KLIXON Protectors.



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EVERY LAPEL at the Bank of the Manhattan Co., New York, wore the same legend on this button (right) for three months. No matter how visitors added, multiplied, or divided the figures, it all came out as a . . .



Formula for New Business

This week, the mysterious campaign button in the picture above wound up a successful three-month job for the Bank of the Manhattan Co., of New York. So successful was the button, in fact, that it may fairly be elevated to a campaign-button Valhalla, to rank with Keep Cool With Coolidge, Repeal the 18th Amendment, and I Like Ike.

Since Mar. 15, the button has been worn by every one of Bank of Manhattan's 2,700 employees—including officers right up to the president, Lawrence C. Marshall. Its aim was to spark a two-purpose drive. First, the bank, through employee education, wanted to give its organization a greater feeling of unity. Secondly, it wanted to attract a stack of new accounts.

The first goal is hard to measure so soon, but not the second. At the end of last week, with only two days of the drive remaining, nearly 40,000 new accounts had been landed. In the same three months last year, the bank had picked up only 12,000.

• **Selling the Bank**—The idea behind the drive was to combine the two purposes by getting all employees to help sell the bank's facilities, particularly to solicit new accounts. To make this attractive to employees, the bank offered a lavish array of prizes, scaled to the number and the size of the new accounts. To avoid wage and hour complications, soliciting was restricted to regular working hours.

• **Key to the Puzzle**—That's where the button came in. A customer would spot the legend on a teller's lapel and ask, "What in the world is that?" This query would get the teller's foot in the door.

"The 57," he would reply, "is our number of branches, the 155 is the number of years the bank has been

in business, and the 25,000 is the number of new accounts we're trying to get between now and June 15."

Then the teller would tell the customer about the big prizes that he, the teller, would win if he got enough new accounts. If the customer showed interest, the teller would go on to explain that five kinds of accounts were included in the drive: special checking, regular checking, thrift, safe deposit, and installment loans. Big commercial accounts, normally handled by officers, were not included. But the accumulation of 40,000 new accounts added up to over \$26-million in new business for Bank of Manhattan, and the total cost of the drive, including prizes, was a mere \$55,000.

• **Idea Man**—Much of the credit for the campaign belongs to a 39-year-old Bank of Manhattan assistant treasurer named Gould R. Kardashian. In 1940, when Kardashian was a minor employee of the bank, he had been a winner in a small drive for new special checking accounts. After the war, when he was given the job of looking for means of getting new business, he remembered how the campaign had nearly tripled the number of special checking accounts in three months by paying \$1 per account to employees who found new customers.

Kardashian soon found out that a hitch had developed in the meantime. The bank's legal department warned that new wage and hour laws might upset things. For example, an employee might show up one morning, claim he had been out soliciting half the night, and toss a fat claim for overtime on the manager's desk.

Last year, Kardashian started buzzing around the idea again. This time the lawyers found an out: They told the bank to restrict soliciting to regu-

lar working hours. Kardashian roughed out a plan and took it to top management. Lawrence Marshall, the president, was all for it.

• **Better Than Money**—With the bank's blessing, Kardashian went to work. He got Belnap & Thompson, Inc., a company that manages contests, to advise him and to set up the prize system. Belnap & Thompson told him it was best to give merchandise prizes—not money as in 1940—because “the dollar bill doesn't have the glamor it did then.”

Employees earned prize points—for example, 250 points for a new special checking account—and applied these points toward items on the prize list. A typical prize was a Sunbeam iron at 2,042 points. Some of the campaigners amassed as many as 30,000 points; one or two reached the 100,000 level.

• **House Organ**—Kardashian and others had long thought the bank needed a house organ, and the campaign proved a chance to try out the idea. For the duration of the drive, *The Manco Roadbuilder* was issued twice a month. It reported progress toward the 25,000-account goal, gave instructions, and built up competition among the branches.

The name of the campaign paper reflects the simile used for the drive: the mile-by-mile construction of a turnpike with 27,000 “miles” as the destination. Originally, Kardashian and his boss, vice-president Lester R. Mahoney, had suggested a goal of 18,000 accounts. Marshall boosted it to 25,000.

• **Tellers' Advantage**—Each of the 57 branches of the bank had a quota to meet. Competition among individuals was also encouraged by publicity in the *Roadbuilder*.

In such a campaign, of course, the tellers hold a recognized advantage, since they deal with more present and prospective customers than anyone else. But the other staffers were not dismayed. They could use all the bank's facilities, including phones and mail. Although participation was voluntary, Kardashian estimates that nearly 80% of the employees took part.

“We found we had more natural salespeople than we had ever imagined,” he says. “We tested a lot of our methods under pressure, found some stood up and others didn't. We also taught our people a lot about the bank. Most of the crowd at the main office didn't even know, for instance, that we now pay 2% on our thrift accounts.”

• **Cynic**—Mostly the campaign built appreciation of the bank's services among the staff, but here and there it stirred cynicism. For example, one employee interpreted the mystic figures 57-155-25,000 like this:

“We have 57 vice-presidents, they work 155 days a year, and they get paid \$25,000 apiece.”

How to buy business success at a bargain

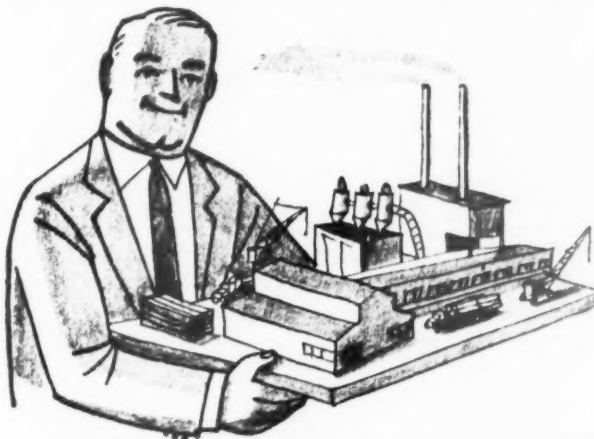
It all began when our client insured a \$2500 loan to get his lumber business back on its feet. Then, at the recommendation of his New England Mutual Agent, he and his partner each took out \$25,000 policies to implement a “buy and sell” agreement. This coverage was later increased to reach a total of \$130,000.

When our client bought out his partner, he acquired a lumber tract, a logging company and a saw mill. Stock was issued to finance these acquisitions and \$150,000 was placed on his life by the company to back the issue and strengthen the financial statement.

Next, after becoming a partner in a second business, he authorized a similar plan involving the purchase of life insurance amounting to \$200,000. This was followed with a deferred compensation plan for key employees, involving \$50,000 of life insurance, and \$5000 tax free insured death benefit for each of their families. Later, the company placed another \$100,000 on our client's life to provide funds to purchase his stock.

Recently, our client acquired another plant, and promptly insured his manager's life for \$100,000. Now a pension plan is in the works, with group insurance in the offing.

The total amount of life insurance purchased over the years, through the same agent, is \$850,000. The total amount of premiums paid to date is \$63,000. This insurance has an accumulated cash value today of \$55,000. In other words, *our client has made an \$850,000 life insurance investment in his own success as well as the success of his various companies — at a net cost of only about \$8000!*



This true story is typical of the professional service available to you from your nearby New England Mutual man working closely with your attorney. May we put you in touch with him?

The NEW ENGLAND

MUTUAL



Life Insurance
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THE COMPANY THAT FOUNDED MUTUAL LIFE INSURANCE IN AMERICA—1835



Townsend made this automotive part at a savings of \$18,000 per year

Big savings turn up in unexpected places when you examine the cost of producing small parts and fasteners. That's what happened when a Townsend engineer suggested that this small spacer stud could be produced by the Townsend method of cold-forming at one-third the cost of the former method. Result—a cool \$18,000 clipped from production costs and a tougher, stronger part.

This is possible because the Townsend method is fast. And all the raw material went into the part, none was cut away as scrap. As a result, more pieces per pound of metal were produced, resulting in additional economy.

Townsend parts have high resistance to shock and fatigue because cold-forming increases ten-

sile strength. The flow lines of the metal follow the contours of the piece instead of remaining in a single plane, as with machined parts. Cold-forming strengthens the threads and eliminates stock notching. Close size tolerances and excellent surface finish are characteristic of Townsend parts.

As "The Fastening Authority," Townsend produces 60-million pieces daily—regularly makes more than 10,000 special and standard fasteners and parts. With this capacity and the experience of 138 years of metal working to draw upon, Townsend engineers will help you reduce your material and assembly costs. Ask to have one of them call. For more information use the coupon below or write for illustrated bulletin.

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In Canada: Parmenter & Bulloch Manufacturing Company, Ltd., Gananoque, Ontario

TOWNSEND COMPANY
Sales Department
New Brighton, Pa.

Please send without obligation "Special Cold-Formed Fasteners and Small Parts" Bulletin TL-89.

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Company _____
Street _____
City _____ Zone _____ State _____

Art of Delegation

Continental Can's Gen. Lucius D. Clay discusses the care and rearing of young executives.

On Saturday last week, 1,400 businessmen gathered at the Harvard Business School for the 24th National Business Conference. The subject for exploration: Releasing the Full Potential of the Management Team.

• **On Stage**—The lectures and discussions tackled the topic from three angles—delegation of work, communications in business, and means of controlling a corporation. What with the pamphlets, theses, books, and expert words on these subjects that have gushed forth in recent months, the big question to many of the 1,400 was whether the three speakers would have anything to add.

It turned out they had some things to add—and a lot to subtract from what has often been said. The crowd gave an attentive ear as Elmer L. Lindseth, president of the Cleveland Electric Illuminating Co., covered communications and Ford Motor Co. finance chief Theodore O. Yntema probed into measurement and control. But it was Gen. Lucius D. Clay—board chairman of Continental Can Co., Inc.—who sat them up in their chairs with his words on delegation.

• **Responsibility Key**—Clay stressed at the outset that delegation is an art—not a science. He said: "... There may come times when even a little cunning and some artifice will be needed to stimulate and develop the will to accept responsibility and the courage to exercise authority."

He accepts the usefulness of organization charts so that "we may know what we seek." But he finds that the charts are meaningless without people who can absorb the responsibilities outlined. "Even then," he adds, "those individuals with above average capabilities will continually absorb the work and responsibilities of their weaker associates," thus leaving incompetence undiscovered, often for years. Along this line, Clay says, "I would never be satisfied with the individual who is not continually seeking to add to his responsibilities, to increase his authority, and who in case of doubt never hesitates to make decisions which are not being made by others more directly responsible."

• **Bringing Up Executives**—The general believes in having a top management that spends its working hours on immediate company problems, not on crystal ball gazing. "All my life," he says, "I have heard of the executive who has so cleared his desk ... that he has no de-

tails to worry about, and can devote all his time to what is called long-range planning." But Clay says the only executives of this type he knows have long lost their ability either to administer or to think. He says: "The executive who is vitally interested in the growth of his company and in the development of its personnel, must do his thinking at home or on weekends because his spare working hours will be occupied in seeing young executives who come to him or in going to see those who do not."

One of Clay's favorite means of maintaining this contact is the plant or field office visit. "No man can be judged fairly through another man's eyes," he says, "and no man can be judged better than in the exercise of responsibility at his place of work."

Clay maintains, however, that informal discussions such as these must never lead to back-slapping. "There is dignity of position to maintain. Perhaps one of the most difficult things to learn is that as we proceed up the ladder we can no longer be a part of the lower rung. This is not an easy concept. Too frequently, it develops the stuffed shirt executive, and creates a stilted artificial atmosphere around him."

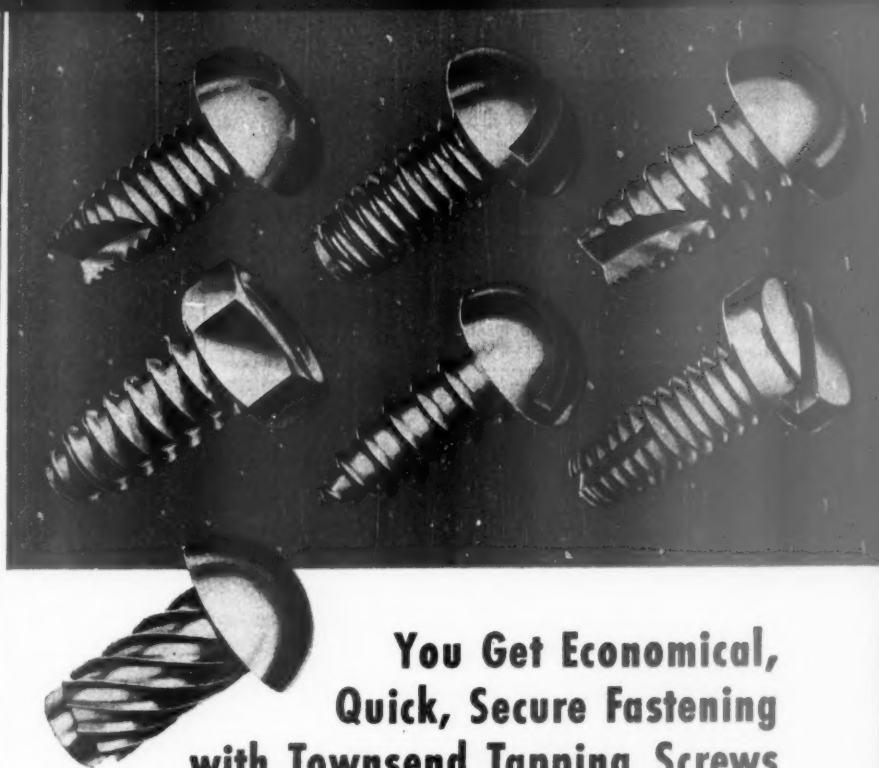
The general recognizes that problems can arise if a top executive discusses problems with juniors on field visits which have not yet been discussed with their immediate superiors, but he says: "I find no difficulty . . . in doing so . . . without committing myself, asking questions and developing points of view which may help them in a better presentation of their views through appropriate channels. It is made clear problems are being probed, not decided."

MANAGEMENT BRIEFS

Chrysler Corp. has made Charles L. Jacobson its chief sales executive to replace A. vanderZee, who has held the position since 1938. Jacobson has been head of Chrysler's motor parts division.

Big Bid: Penn-Texas Corp., headed by Leopold Silberstein, is moving rapidly toward merger with Industrial Brownhoist, of Cleveland, in which it has held controlling interest since last summer (BW-May 8 '54, p93). This week the company, formerly Pennsylvania Coal & Coke, bought the former Brownhoist management's stock, 55,000 shares for about \$825,000.

American Management Assn. will hold its annual General Management Conference next week (Jun. 21-23) at New York's Hotel Statler. Chief subject: How business can adjust to present unsettled conditions.



You Get Economical, Quick, Secure Fastening with Townsend Tapping Screws

You enjoy the economy of quality when you use Townsend tapping screws. They are made to provide an easy method of securely fastening metal, plastics, wood, asbestos and composites with efficiency.

The use of Townsend thread forming screws eliminates costly tapping operations as the precision-rolled thread forms a mating thread when the screw is driven into the material. They are widely used in sheet metal, castings, and a variety of non-metallic materials. They may be removed and replaced without impairment of their holding power.

Townsend thread cutting screws have an off-center slot which presents a true, sharp, thread-cutting face which acts as a tap when the screw is driven into an untapped hole. By cutting their own threads, these screws fit tightly and resist loosening

from vibration. There is no chance of size discrepancy between screw and tapped hole.

Townsend tapping screws are available in the types shown here in a variety of head styles with slotted or Phillips recessed and hex heads. They are but one group of the Townsend family of 10,000 types of standard and special fasteners and small parts used by all industry to improve assembly and speed production.

As representatives of "The Fastening Authority" Townsend engineers can draw upon 138 years of accumulated experience in wire drawing and cold forming to help solve your fastening problems. You can depend upon Townsend to give you excellent service in any quantity. For additional information on the economy of using Townsend tapping screws, send the coupon below or write.

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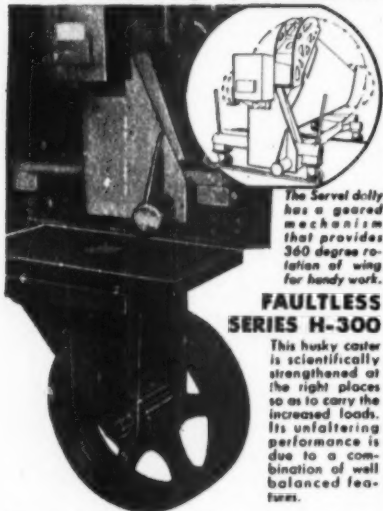
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Sales Department
New Brighton, Pa.

Please send to me without
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Faultless CASTER MATERIALS HANDLING FACTS

An authentic report on the handling of heavy Bomber Wings by SERVEL, Inc.



The Servel dolly has a geared mechanism that provides 360 degree rotation of wing for handy work.

FAULTLESS SERIES H-300

This husky caster is scientifically strengthened at the right places so as to carry the increased load. Its unflinching performance is due to a combination of well balanced features.

The portable fixture-dolly shown above (called a Rotary Wing Dolly) designed by Servel engineers for moving bulky, intricate aircraft wings, is constructed of 1/4" plate and 8" tube steel. Weighing approx. 1 ton each, these unique materials handling devices are mounted on 4 Faultless H-306-10 swivel casters. These heavy duty industrial casters have 10" dia. semi-steel wheels equipped with roller bearings in the hub and two rows of balls for the swivel bearings. A 3/8" thick top plate and 1/4" heavily corrugated side members add extra strength. Dustproof swivel construction assures long, trouble-free material movement easily lubricated at all times. We can help solve your caster problems, as we have for Servel, Inc. Simply call your local Faultless Caster Distributor listed in your phone directory or write us today.



Exploded view of swivel

Each month the solution to a real materials handling problem is fully presented in a free, handy size folder. To get the complete illustrated story on the Servel caster application mentioned above, write today on company letterhead.

FAULTLESS FEATURES

2 full rows of hardened ball bearings above and below the caster horn top plate.

2 complete uninterrupted ball bearing hardened race-ways of large diameter.



FAULTLESS CASTER CORPORATION, EVANSTON, ILL.

New Water Hole

NEW YORK CITY—Just four years ago, New York City was desperately short of water—so much so that it hired a rainmaker and restricted nonessential use of water. Early this year, the city's reservoirs were again getting low; only timely rainfall warded off new restrictions.

But that was probably the city's last water pinch for about 40 years. Last week the U.S. Supreme Court gave the city the right to take additional water from the Delaware River; the Board of Water Supply thinks it's enough to keep supply ahead of demand till about 1992.

New York City's first major water supply development was the Croton watershed, east of the Hudson River, and just north of the city. It was built in two stages, the second completed in 1990. Around the turn of the century the city decided against using the polluted Hudson River, and settled on the Catskill Mountains instead. The Catskill watershed system was also built in two stages, in 1915 and 1927.

• **Future Needs**—Even before it was completed, the city was looking ahead; it chose the headwaters of the Delaware River as its next major source. But there it ran into trouble. The Croton and Catskill watersheds are entirely within New York State, but the Delaware is an interstate river. New Jersey fought the city's right to tap the Delaware. In 1931, the Supreme Court allowed the city to take up to 440-million gal. per day from the river.

This has also been built as a two-stage project. Nevcrsink and Rondout reservoirs, on Rondout Creek, a Delaware tributary, are just now going into full use. Pepacton reservoir, on the east branch of the Delaware itself, will be completed next year.

However, the city realized several years ago that even these would be enough only through about 1967. This time a solution was sought through interstate action: New York State, New Jersey, Pennsylvania, and Delaware set up an Interstate Commission on the Delaware River (Incodel) to work out a plan to develop the entire river for the benefit of all four states. The commission came up with such a plan, but it died when Pennsylvania refused to ratify.

• **Still More**—In 1951, New York City went back to the Supreme Court for permission to take another 360-million gal. per day from the Delaware. New Jersey and Pennsylvania objected, and the court appointed a special master, Kurt F. Pantzer, to study the whole

problem. Last summer he came up with a plan to use the storage capacity of the city's reservoirs to assure a minimum flow downstream even higher than it is now, and still give the city what it asked.

Last week the Supreme Court gave New York permission to take the added water, and the city immediately started plans to build Cannonsville reservoir, on the Delaware's west branch. It should be completed within six to eight years. To safeguard the rights of the other states, the court directed that a river master be appointed for the Delaware. His job: to keep an eye on how Pantzer's formula is working, and to report back to the court once a year.

Out of the Dark

HOUSTON—Last year, the Central Houston Improvement Assn. decided that older sections of the city's downtown business district got too dark at night. Dark doorways and dim alleys in these sections, the association noted, had become hangouts for vagrants, drunks, and other nocturnal wanderers. The darkness was also an encouragement to petty crime. The association decided that more and brighter lights were needed.

The city of Houston not only agreed with the association; it went several steps further than the association had envisioned in its wildest dreams. By the end of the year, if all goes according to plan, the entire downtown area of Houston will be lighted by mercury vapor lamps.

The association's original plan had been merely to improve lighting on the darker streets. It considered itself well on the way to victory when it managed to get 89 mercury vapor lamps installed in a 20-block area of the older business district. But when complaints to police from the area dropped 50% as a result, the association's campaign picked up followers. The Houston Lighting & Power Co. and the Houston City Council jumped into the act.

Two months ago, the council approved plans to install some 1,500 mercury vapor lamps through the downtown district. The power company is footing the bill—\$1.5-million—for installation of new standards and lights. The city council will pay the yearly operating expenses, estimated at \$150,000. Last week, the program was 35% complete.

Barless Airport

TOLEDO—Plane passengers embarking from this city's new airport may have to bring their own sandwiches if they hope to eat while awaiting

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...the first and only complete Employee-Benefit Plan
specially designed for smaller employee groups

MONY MODULE

is a completely new multiprotection plan.

In one package, it offers various combinations of:

1. Retirement pension for the employee.
2. Death benefits for his dependents.
3. Income to his widow to supplement Social Security.
4. Disability income for the employee.
5. Hospital and surgical benefits for the employee and his family.

The word "MODULE" means "unit." MONY MODULE is made up of basic units of insurance and retirement benefits. It's a "build-your-own, unit-by-unit" plan providing the desirable combination and amount of benefits.

Until the invention of MONY MODULE, there was no comprehensive employee-benefit plan specially designed for small groups. Group insurance and annuities—as conventionally used by larger organizations—do not adequately meet the need in a smaller firm. And retirement plans for small groups using regular retirement policies are often inflexible and expensive.

Yet a good employee-benefit plan is one of the most important assets of any company. It keeps employee morale high, makes people proud of the company they work for, reduces costly turnover, and gives workers a feeling that they count as *individuals*—all of which is good for productivity.

Now, these advantages are no longer enjoyed exclusively by large firms. For, with MONY MODULE, the smaller business can meet the larger companies on their own ground—offer employee benefits *even more attractive than those the competition offers*, at the right price!

It's often possible to cover employee groups of as few as 10 to 25 people. And MONY MODULE employee-benefit plans have been installed at costs ranging from 1% to 10% of pay roll. In some cases, part of this cost has been covered by employee contributions.

Electronic "Brain" Makes MONY MODULE possible.

New electronic equipment handles the complex "paper-work" of this amazingly flexible plan so speedily and so efficiently that MONY can pass on the resulting savings and benefits of unit construction!

Check these important advantages of MONY MODULE

1. Costs less! More benefits for less cost than other plans for small business firms!
2. Covers older employees! Older employees can be given adequate benefits without undue initial heavy investment!
3. Unit costs grow smaller as plan grows larger! Because of its unique structure, MONY MODULE can reduce the unit cost per person as the average size of the benefit per person and number of lives covered increase.

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Send for full details—today! Mutual Of New York is the only life insurance company that offers this unique plan. Let a MONY representative show you why it is the most beneficial, most flexible, most inexpensive employee-benefit plan ever offered to smaller business firms. Just mail the coupon.

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Broadway at 53th Street, New York 19, N. Y.
I'd like to find out more about MONY MODULE—and
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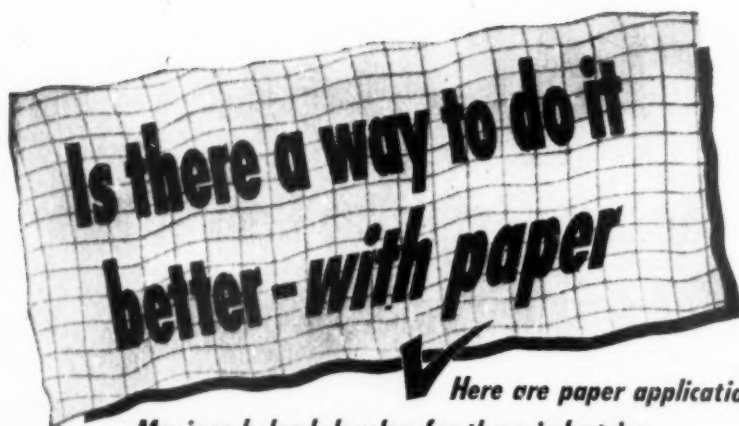
Company Name _____

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City _____ State _____



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Mosinee interleaving papers protect mirror-finish stainless steel. Presence of foreign materials or surface imperfections would mar the metal's highly polished surface. Mosinee, through highly developed chemical and quality controls, produces these papers with the required uniform properties.



PRODUCTION
Special Mosinee masking papers increase auto painting efficiency, reduce costs. These papers must have specific, controlled physical properties including high density and absolute freedom from pin holes to prevent paint penetration. Mosinee "know how" helped develop papers for this special application.

THESE applications are typical of the many instances in which Mosinee paper experts have cooperated with industry to develop special analysis papers to perform specific jobs. If your work involves costly or troublesome packaging . . . protection . . . insulation . . . lamination . . . fabricating . . . or processing — a specialized Mosinee paper may provide the answer you've been looking for.

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INSULATION
Flame-resistant paper by Mosinee makes good insulation better — safer. In this case, Mosinee flame-resistant paper is produced for the manufacture of home insulation bats. This exclusive Mosinee process may also be used with many types of paper for other products and may suggest a solution to your problem.

flight time. As it looks now, the airport may contain no restaurant.

All bids for the restaurant concession include the same condition: The serving of liquor must be allowed. Otherwise, no restaurant operator is interested.

Before Toledo can make any promises, however, it must get a liquor permit from the state. And that is turning out to be a near-impossibility. The liquor control department already has a formidable list of applications for liquor permits from Lucas County, in which the airport is located. And the department "adheres strictly to the requirement that . . . applications be processed in the order in which they were filed." There are so many applications ahead of Toledo's that, according to the department, the airport will have to do without liquor throughout the "foreseeable future."

Tax on Private Roads?

DALLAS—In Texas, toll roads can be built and owned by private interests. The question now before the courts is this: Can they also be taxed as private business, or should they be exempt because of their contribution to the general public welfare?

In January, District Judge D. A. Blankenship ruled that private toll roads can be free of property taxes. Various public bodies appealed the ruling, and last month the Fifth Court of Civil Appeals, in Dallas, reversed Blankenship's ruling. Private toll roads are not "public property devoted exclusively to public purposes," the court said, and are therefore not entitled to tax exemption.

At least one of the private toll road companies plans to take the case to the Texas Supreme Court.

Update

NASHVILLE—Radio and television program logs appeared in the city's newspapers last week, after an absence of five months. A quarrel between the newspapers and the broadcasting stations (BW—Jan. 23 '54, p148) was apparently settled to everybody's satisfaction.

The quarrel involved the exact status of program logs. The newspapers maintain that such logs are, in effect, advertisements for the broadcasting stations. The stations disagreed. Program logs, said the stations, are not ads but news.

Now Nashville's two biggest radio stations and one of its TV stations have agreed to the newspapers' terms. The terms require a service fee of \$7 a day from full-time radio stations and \$5.50 a day from TV stations. Most of Nashville's remaining stations are expected to agree to the terms shortly.

MICRO SWITCH Precision Switches

A PRINCIPLE OF GOOD DESIGN

A few switch types
which illustrate
the wide variety
of precision switches
in the MICRO SWITCH line

Why

*it is GOOD BUSINESS to specify
MICRO SWITCH when ordering small, precision switches*

Experience—MICRO SWITCH is a pioneer in the manufacture of precision, snap-action switches.

Quality—Exclusive MICRO SWITCH testing and quality control methods assure absolute uniformity of performance and reliability, whether the order is for a few switches or hundreds of thousands.

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an entirely new switch is required, MICRO SWITCH engineering service, both in the field and at the factory, will cooperate in the development of the switch for your application.

Replacement—It is easy to buy MICRO SWITCH products for replacement or for plant installation on present equipment to make it safer, more automatic or more productive. Stocks of switches for this purpose are in the hands of 180 distributors at 161 key points.

Savings—Economy from the use of MICRO SWITCH precision switches comes from their precise operation, their long-life dependability and freedom from maintenance.

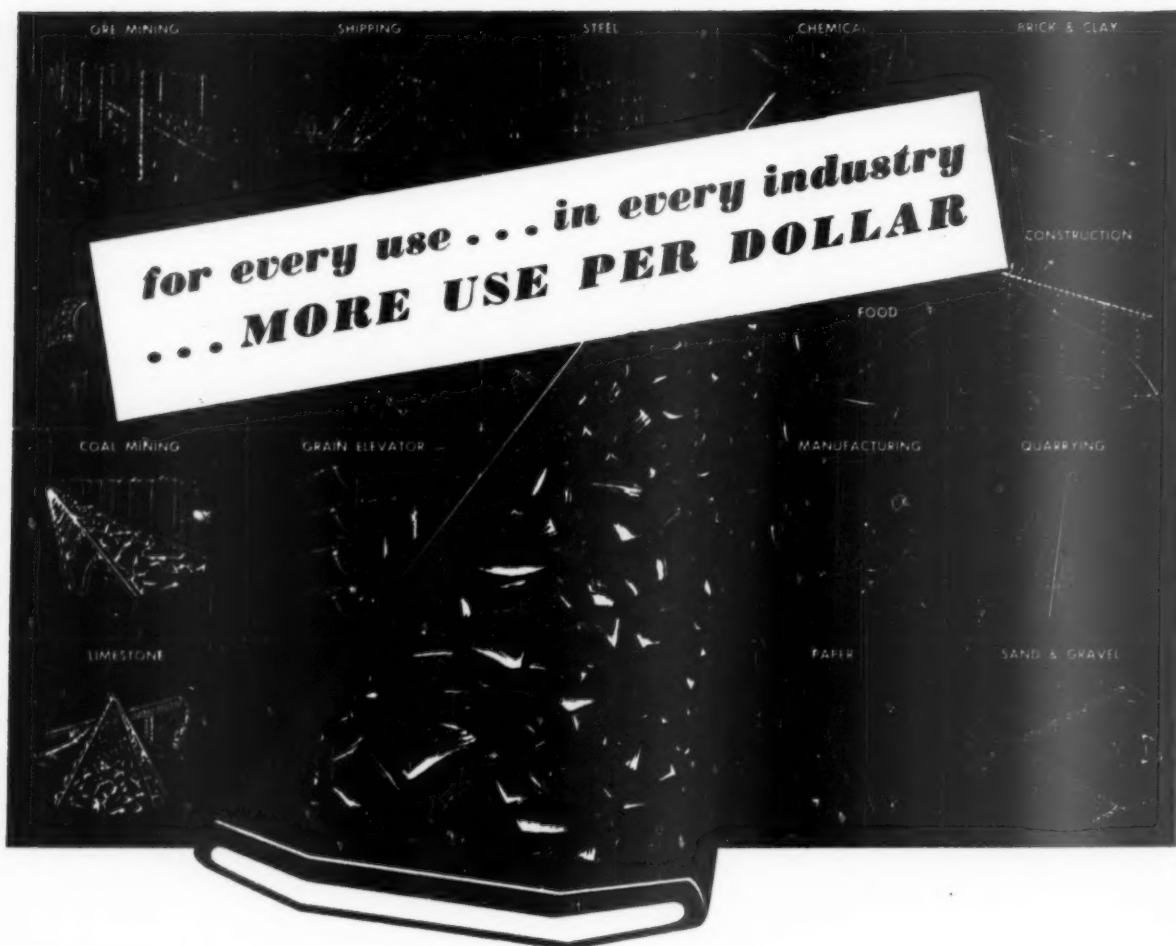
*If you require small, precise, light-weight switches,
it is good business to specify MICRO SWITCH.
They give longer life than you will ever need.*

MICRO SWITCH provides a complete line of extremely reliable, small-size, high-capacity, snap-action precision switches and mercury switches. Available in a wide variety of sizes, shapes, weights, actuators and electrical characteristics. For all types of electrical controls.

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If conveyor belts are your problem, turn to Raybestos-Manhattan. There are R/M Conveyor Belts with extra cushion for heavy shock loading. R/M Conveyor Belts for mining, quarrying, or bulk materials are unequalled for natural troughing, flexibility and long life. The latest exclusive development of R/M engineers is the "XDC" cover which protects heavy duty conveyor belts against wear, abrasion, cuts and tears to a

degree never before attained. Hot material, high tension, long lift, oil or non-spark conditions . . . all are met with special R/M Conveyor Belt designs. Equally good engineering goes into R/M Belts for light duty . . . packages, parts, cases or wood chips. For every use R/M Conveyor Belts give you More Use per Dollar. Consult an R/M representative. Ask him also about R/M Hose, Transmission, V-Belts and other industrial rubber products.



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RM-417

INTERNATIONAL OUTLOOK

BUSINESS WEEK
JUNE 19, 1954



The Churchill-Eden visit (page 25) is proof that both London and Washington have all but written off Geneva—and with it any hope of negotiating directly with the Communist bloc.

If there are to be further East-West talks on Indo-China they will have to be in the United Nations.

And to prevent still more empty talk in the U.N., the U.S. and Britain must be prepared to back their position at some point with force.

The U.S. already has set the stage for U.N. action. It is backing a plan to send an observation team to watch for any Communist threat to Thailand.

Now Washington may try to get the British to join in asking the U.N. to help protect Laos and Cambodia in the same way.

Thus the West could draw a clear line against further Communist expansion.

There's still the question of organizing a Southeast Asia defense pact.

This is sure to be a sticky problem in the Eisenhower-Churchill talks.

True, the British are more ready than they were to go along with the kind of defense pact Dulles wants. Two things have brought this change in British opinion: (1) less U.S. talk of immediate intervention in Indo-China; and (2) Eden's failure to get anywhere with the Communists at Geneva.

But Churchill still is inclined to go slow. Although he is ready to prepare for intervention, he wants to avoid any immediate military action or threat of action.

The Communists, of course, are trying to keep Geneva alive. It has served as a useful cover while they pushed their military aims in Indo-China.

So this week Molotov and Chou En-lai shifted their tactics, offered some concessions.

However, Washington and London have definitely decided to break off the Geneva talks. The most they will accept is to have a standby group remain in Geneva in case the French and the Vietminh keep talking about a military truce.

—•—

Eisenhower and Churchill won't limit their discussions to Asia.

They must take another look at the European Defense Community and German rearmament.

Unless France ratifies EDC this summer, the U.S. plans to:

- Grant West Germany full sovereignty regardless of the fact that the draft peace agreements are now tied to EDC.
- Find a new way to allow West Germany to rearm within the Western defense setup.

The U.S. and Britain have no other choice in Germany.

The West Germans have lost patience with French stalling on EDC and aren't prepared to wait much longer for their sovereignty.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

JUNE 19, 1954

Nikita Khrushchev, Communist Party boss in Russia, did some tough talking in Prague this week.

He told the Czechs that Russia now has so much atomic strength that the U. S. will not dare to go to war.

In saying this, Khrushchev was telling the Czechs and all the satellite peoples: Give up any hope of liberation by the West.

—•—

A showdown in Guatemala is likely within weeks—or days.

Apparently Guatemala's army, unknown factor in the past few years' political shenanigans, has given President Arbenz a virtual ultimatum: Purge the Communists or get out.

Civil war can't be ruled out. There's evidence that the government is arming Red-controlled peasant and labor groups.

For all its sympathy with the insurgents, Washington will try to keep clear of any shooting fracas. Intervention would certainly alienate many Latin Americans—who can't understand why all the Yankee excitement about tiny Guatemala.

All we could do in case of an anti-Communist victory would be to move in fast with diplomatic recognition and perhaps economic support.

But the Guatemalan business could drag on for months—with continuing alarms up and down Middle America. An inter-American conference to find ways to curb Communist growth there is still in the cards.

The State Dept. has finally won a solid majority of Latin American governments for such a meeting. Most important, Mexico—which has been betwixt and between on Guatemala—is lining up with Washington.

—•—

European financial centers, including London, are buzzing with rumors of impending moves to further strengthen the pound sterling.

There's talk that the Bank of England will soon spread the sterling-dollar rate, let the pound fluctuate beyond the present margins. (Parity is now \$2.80 but the pound is selling at almost \$2.82.)

You also find some dopesters who think the pound will be made convertible into dollars some time this summer.

Behind this talk is the solid fact that London is now moving definitely toward convertibility. And in the process a fluctuating rate is a real possibility.

But the chances are against any sudden moves on either count.

In the case of convertibility, the British must get agreement this summer on the problem of future import restrictions from other members of the Organization for European Economic Cooperation and from GAAT. Then at the September meeting of the International Monetary Fund, Chancellor Butler will want final assurance on what standby funds will be made available by the IMF or the U. S. Federal Reserve Board.

When it comes to a fluctuating rate, London needs IMF permission to widen the margins by 5% either side of parity. This is the kind of spread the Bank of England expects to need to defend convertibility.

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Noiseless Air Conditioning Defies Detection by Recording Studio Microphone

This Westinghouse System Doesn't Even Register a Hum on Sensitive Master Recording Microphones.

Noise, mildly distracting to some people, would put Audio-Video Recording Studios out of business. Because even the slightest hum can spoil a master recording—seriously boosting talent and production costs.

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BUSINESS ABROAD

More Storms Over Foreign Trade

● The coming months will bring fierce wrangles and important decisions on such ticklish questions as . . .

① **Japan:** Should its goods be given freer access to U.S. and world markets? The Administration says yes; some U.S. industries say no.

● **Export-Import Bank:** Many businessmen and congressmen want its role greatly broadened.

President Eisenhower's long-term trade liberalization program—essentially the view outlined in the Randall Commission report—is officially on the shelf for another year. But few observers expect the great debate on foreign economic policy to still to a summer's whisper. The coming months will bring important decisions, and inevitably political fireworks, in the arena of U.S. trade with the rest of the world.

You'll hear a lot about tariff bargaining with Japan for one thing; businessmen here and abroad could be intimately affected. And within the next few weeks, the President must make up his mind on two key requests for tariff increases—on Swiss watches and on lead and zinc.

• **Patchwork**—Despite the over-all loss of momentum, the Administration means to do some patchwork in the foreign economic field this year. These developments point the way:

• The House has passed a one-year extension of the Trade Agreements Act (it expired last weekend), with no protectionist strings attached. It should slip through the Senate soon. This will allow the U.S. to negotiate a trade agreement with Japan, something that is bound to stir a domestic political rumpus.

• Companion bills to strengthen the Export-Import Bank, and increase its lending authority, have been introduced in the House and Senate with the President's blessing. There's bipartisan support for this legislation—which would step up short-term financing for U.S. exports and perhaps long-term development loans abroad.

• **Reactions**—The news of Ex-Im's revival encourages many U.S. traders. On the other hand, the tariff requests now on the President's desk give many the willies. The Tariff Commission has recommended stiff duty increases on Swiss watches and on lead and zinc. Pressures behind the requests are strong.

U.S. lead-zinc mining, especially, has fallen on troubled times. A decision to raise duties would surely draw from U.S. industry a stream of new requests for tariff relief. These requests would be hard to control—particularly in an election year.

Moreover, increased watch tariffs would chill U.S. trade relations with Switzerland, and have repercussions throughout Europe. Canada and several Latin American nations would react bitterly to higher barriers against their lead and zinc.

I. Enter Japan?

Washington has decided to go all out to bring Japan into the General Agreement on Tariffs & Trade (GATT), the free world trading community, as a full member. In the process the U.S. would have to grant tariff concessions to Tokyo. The threatened loss of Indo-China increases the strategic necessity of bolstering the shaky Japanese economy. If Japan should lose any markets in Southeast Asia, the job could become immeasurably tougher.

Bringing Japan into GATT would assure it access to all free world markets on a multilateral basis. As a result of U.S. efforts, Japan is already a partial, temporary member. Twenty-three nations last year extended to Japan the tariff concessions they had made to each other during the postwar period. But this stopgap agreement expires next month.

• **Troubles**—Exhaustive tariff dickering within the GATT framework is necessary for Japan's bid for full membership. And the U.S. will have trouble with some trading nations. Western European industrial countries and protection-minded Commonwealth members, nursing their own infant industries, fear Japan's competition. They remember Japan's cutthroat prewar trade tactics, wonder if they should trust

Tokyo's postwar protestations of good behavior.

It will be politically difficult for the U.S. itself to make important tariff concessions to Japan. That's why the Administration wants to conduct the negotiations within GATT. That way tariff concessions, and the resulting increase in Japanese competition, would be spread across the free world.

In seeking new outlets for Japanese exports, the U.S. will have more bargaining power under the simple one-year extension of the Trade Agreements Act than it would have had under the full-blown, three-year trade program submitted to Congress originally. Under the Eisenhower program, the Administration could have cut tariffs only 5% per year for three years. Under the extended Trade Agreements Act, it's possible to cut duties on Japan's products much more—and to offer larger concessions to third countries if they, in turn, will join the U.S. in granting Japanese exports easier access.

This is because the U.S. has granted no tariff concessions to Japan under the Trade Act since the war. The act says that the Administration has the authority to cut any tariffs 50% below the 1945 level.

• **Protests**—It's too early to tell just what U.S. tariffs might come down, by commodity or by country, in the dickering over Japan. But it's certain that whatever duty rates are involved in the bargaining, there will be protests from sectors of American industry.

Many key Japanese exports are highly competitive with U.S. products. Look at the list that could be involved: tuna fish, sewing machines, chinaware, toys, silk scarves, costume jewelry, pens, pencils, cigarette lighters. Almost all corresponding U.S. industries are highly vulnerable to foreign competition.

• **World Plan**—In addition to talks about Japan, Washington is mulling over a long-term plan to refurbish the entire GATT arrangement. Now, GATT consists of two parts: (1) a code of trading rules—fair practice on import quotas, export subsidies, exchange rates, and the like; and (2) provision for a world arena for multination tariff negotiations. But while the U.S. played a key role in forming GATT, and has taken part in three major postwar tariff-cutting bees, Congress has never formally approved U.S. membership.

This is a major reason for uncertainty in the free world over the future of U.S. trade policy. The Administration

VIBRATION..

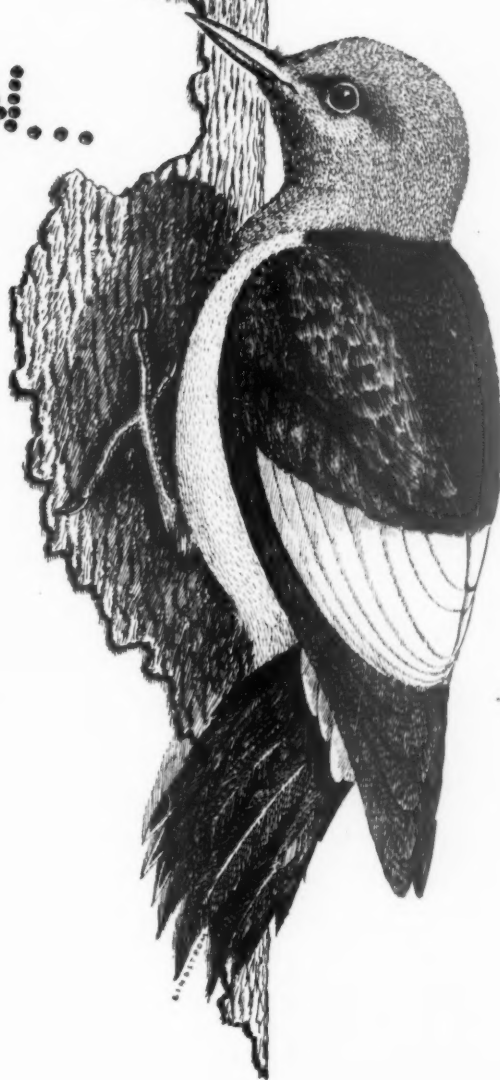
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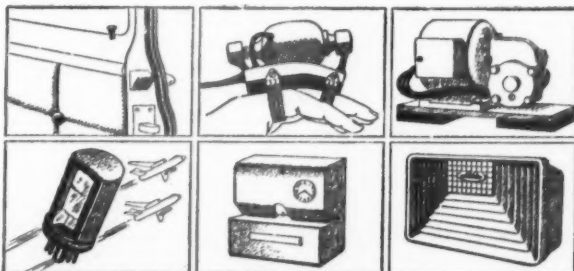
In aircraft electronic equipment, Spongex absorbs vibrations—protects delicate parts. Under time clocks, Spongex dampens vibrations—prohibits creeping. In air conditioners, Spongex acts as a seal—eliminates rattles for quieter operation.

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hopes to revamp GATT to bring it more in harmony with present international economic conditions—then submit the whole works to Congress next year. If this double-barreled project goes through, the Administration figures the world will have a more solid framework for future progress toward free-flowing international trade.

II. Reviving the Bank

Last week's second major move in foreign economic policy came from Congress—and the business community—rather than from the Administration. Republican Sen. Homer Capehart of Indiana, author of the bill to resuscitate the Export-Import Bank, is given a lot of credit for the move. He held exhaustive hearings—with businessmen both in this country and throughout Latin America.

The Capehart bill, in effect, would reverse the switch in Ex-Im's status carried out by the Eisenhower Administration last year (BW—Aug. 15 '53, p136). Ex-Im lost its board of directors and its seat on the National Advisory Council, the senior U.S. body responsible for international financial policy. Ex-Im lending policies were brought under the control of Treasury Secretary George Humphrey, who wanted to curb Ex-Im's role.

• **Attack**—This policy came under immediate attack from foreign governments, particularly in Latin America, where Ex-Im had concentrated many of its credits. Many Americans joined in: Milton Eisenhower—after his hemisphere tour, the State Dept., and U.S. exporters who felt they were menaced by free-wheeling credit competition from Europe. But Humphrey held his policy line against all comers until Capehart forced the Administration's hand. Capehart threatened to push through Congress even more wide-open Ex-Im legislation than the present compromise.

Capehart's bill would give Ex-Im back its independent board, restore its voice on the Advisory Council. Bank lending authority would be increased by \$500-million, to a total of \$5-billion. The first result of the legislation would be an increase in the number of loan applications to the bank. Applicants, exporters here and businessmen abroad, have been sitting on their plans awaiting a firm policy.

• **The Trade**—There's no indication that Humphrey has substantially changed his views about a limited role for Ex-Im. So Washington expects continued scuffling over Ex-Im activities, especially regarding long-term development loans.

But the tide of business and congressional opinion is clearly running strongly in favor of more Ex-Im bank lending.

Latin American Steel Splurge

Colombia, Argentina, and Brazil are pushing projects to build self-sufficiency . . . Panagra eyes Braniff's lines below the border . . . Strike threat in Mexico.

Building a steel mill is an article of faith among the leaders of Latin America. The first integrated plant is a patriotic symbol heralding a nation's industrial advance. However high-cost, a steel mill brings a certain amount of freedom from imports, a step toward national self-sufficiency. And more often than not, the steel mill affords a chance for government to get into a profitable business with endless opportunities for political blay.

Here are some of the new developments in Latin American steel over the past few weeks:

In Colombia. The National Steel Co. of Paz de Rio is getting ready for the August inauguration of its \$100-million integrated mill at Belencito. Two weeks ago the process of heating the coke ovens began. By yearend the plant should be within sight of its initial yearly capacity of 145,000 tons of ingot.

Dr. Roberto Jaramillo Ferro, Paz de Rio's head man, estimates that the plant will almost fill Colombia's needs of simple shapes, rods, rails, and certain wires in 1955—with a saving of some \$20-million worth of foreign exchange. In order to give Colombian steel a running start in the market, the government this spring banned imports of certain types of iron and steel. Colombia is fortunate in having plenty of middling-quality coal and iron ore—a rare circumstance in Latin America.

The Paz de Rio mill is an international venture. Only \$8-million worth of U.S. equipment is being installed, but U.S. engineers—Arthur G. McKee Co., Cleveland—are the coordinating contractors and technical supervisors. The Bank of Paris has advanced \$29-million to the project, and French engineers are installing made-in-France coke ovens, steel plant, rolling and wire mills, and other facilities. Mexican engineers are erecting a French power plant; Germans are in charge of the mining operations; and Dr. Jaramillo believes there are some Japanese slide-rules on the premises.

In Argentina. The government is determined to erect an up-to-date integrated steel mill. This spring Buenos Aires made the top bid for a Czechoslovakian rolling mill impounded in the U.S. by the West's strategic embargo. U.S. engineers are advising on the plant project and one firm has a letter of intent to build a blast furnace. The French are working on other facilities at the San Nicolas site. Trouble

is there are no adequate supplies of coal and iron ore in Argentina.

Last week, the Peron government announced a deal that could help with the raw materials supply—and might mean equipment for its steel mill. There's to be a three-year, three-way barter arrangement with Peru and West Germany. The plan: Argentina ships wheat and meat to Peru, gets dollars earmarked to buy German machinery and also coking coal and ore from Peru. Germany would get assorted Peruvian ores as well.

The big question mark—and it hadn't been cleared up as BUSINESS WEEK went to press—was talk that the barter deal carried with it a huge line of credit for Argentina, financed by Peruvians with German backing. Argentina, so the story goes, would immediately receive \$125-million toward purchasing steel mill equipment in West Germany. Peruvians are apparently anxious to nail down a permanent market for their coal and iron ore.

Later, according to the first reports, the Peruvian combine would make further credits available, all within the framework of President Juan Peron's five-year plan to increase Argentina's steel capacity.

If the steel deal comes off as heralded—something many observers doubt—it will be a major coup for the Peronist policy of arranging barter deals with substantial credit term attached. Already, Argentina owes West Germany some \$86-million—payable through 1957; and Peru holds \$10-million worth of Argentine IOU's.

In Brazil. The government-controlled National Steel Co., proprietor of the big Volta Redonda mill in Rio de Janeiro state, is increasing its capital by the equivalent of \$25-million. Production at Volta is now 700,000 tons yearly, and expansion plans aim at a target of 1-million tons. A new blast furnace is already in place; another battery of coke ovens, two new open hearths, and subsidiary equipment are in the works.

Meanwhile, the bustling businessmen of Sao Paulo state have the steel gleam in their eyes. A Sao Paulo Steel Society has been chartered, with a substantial kitty to study the possibility of a 300,000-ton-yearly, \$100-million steel plant in the Sao Paulo area, now the industrial and economic makeweight of Brazil.

Other Brazilian studies are going on

—one involving a big steel mill in Espirito Santo state, another in the coal-mining district of Santa Catarina. Last year, Brazil produced some 982,000 tons—Latin America's largest steel industry. This year, Brazilians have been aiming at 1.4-million, half from Volta Redonda.



Exit Braniff?

Braniff Airways, Inc.—one of three major airlines now serving South America (map)—may soon pull out of the area and let Pan American-Grace Airways, Inc. (Panagra) take over its routes.

Last week Panagra offered to buy Braniff's planes—4 DC-6s—and ground facilities serving Latin America for \$5-million in cash, or stock of W. R. Grace & Co. and Pan American World Airways, Inc., joint owners of Panagra. There's a good chance Braniff will snap up the offer. It has taken a beating on the Latin American flights it started in 1946 and reportedly would be glad to get out of the red.

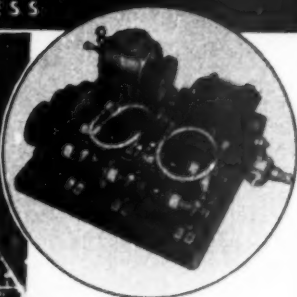
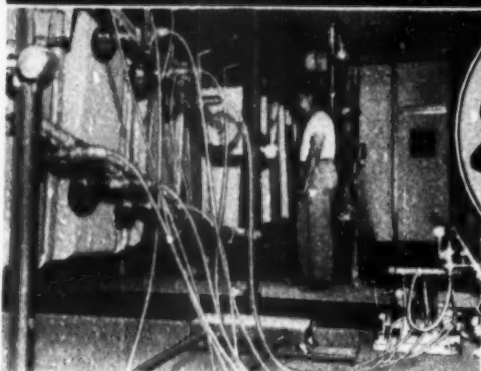
Panagra says it wants to end the present duplication of service and save the U.S. taxpayer's money. Braniff got \$3-million in government subsidies last year, Panagra over \$2-million.

Panagra also claims its amalgamation with Braniff will bolster U.S. airlines against stiffening foreign competition. In 1940 there were only 10 international airlines serving Latin America. Today you can count over 50.

• **Government Hitch?**—But Panagra may run aground when it seeks a U.S. government O.K. on the move. Braniff's

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clues

Latin American flights were originally licensed to break up what Washington antitrusters called a Pan Am-Panagra monopoly. And in 1953 the Justice Dept. started antitrust proceedings to force Pan Am and Grace to give up their holdings in Panagra. Though the Civil Aeronautics Board now favors consolidation of Latin American service, the Justice Dept. is yet to be heard from.

Mexican Wage Wrangle

Businessmen in Mexico, just recovering from April's flash 40% devaluation, are nursing further worries this week: A threatened general strike in July, involving 24-million Mexican workers.

The strike threat stems from the devaluation, and the 20% general price rise that followed (BW-Apr. 24 '54, p138). The Confederation of Mexican Workers—CTM, representing 20 national unions—is determined not to settle for the blanket 10% wage increase suggested by President Ruiz Cortines. Its leaders are talking of a 24% minimum rise—and promise a showdown fight.

Still, there's some doubt that strike will come off July 12 as advertised. The government and CTM have in the past been notably cooperative with each other, and there should be room for compromise. At midweek, labor, management, and government officials began meetings designed to avert the walkout.

• **Resilient**—Despite the alarms from the labor front, Mexico seems to be springing back from the devaluation shock. Many businessmen report normal trade—though in autos the new steep prices (devaluation jumped a Ford from \$2,500 to \$3,500) have slowed sales to a trickle. Across the country bumper crops give Mexicans a feeling of prosperity, and the devaluation medicine seems to have helped mineral output. Imports of construction and farm machinery are running high.

The Pictures—Associated Photographers—156; Philip Boucas—106, 107, 108; Floyd Bright—72, 73; Henry G. Compton—Cover, 29 (bot. lt., rt.), 32 (top), 110, 134; Int'l News Photos—25, 155 (bot.); Minneapolis-Honeywell—117; Ed Nano—94, 95; N. Y. Central Railroad—32 (bot.); Bob Phillips—51; Morris Rosenfeld—28, 29 (top lt.); Standard Oil Development—122; Union Carbide & Carbon—120; United Press—152, 158 (top); U.S. Rubber—124; Wide World—88; George Woodruff—78, 79, 80, 81.

Anti-Foreign . . .

. . . bill passed by Philippine Congress would drive aliens out of retail trade. Americans foresee trouble.

President Ramon Magsaysay of the Philippines is mulling over a bill that would drive foreigners out of the islands' retail business. Passage of the bill by the Philippine Congress is taken as a sign of rising economic nationalism among Filipinos.

If Magsaysay signs the bill, no one but a Philippine citizen could own a store in the future, and present store ownership would gradually be Filipinized. A store owned by a foreign individual would have to be closed within six months after the owner's death; a store owned by a corporation that has any foreign shareholder would have to close 10 years from now.

• **Shopkeepers**—The ax would fall chiefly on Chinese and Indian merchants. In the Philippines, as in other parts of Asia outside their homelands, they have taken over most of the retail business. However, U.S. people have interests in some of the biggest and oldest stores in the islands, and they would also feel the blow.

Americans sold controlling interest long ago in such landmarks of the Manila business district as Heacock's department store and the Philippine-American Drug Co. But these stores would fall under the ban. Under the new law, a business is doomed if even a single share of stock is owned by a foreigner.

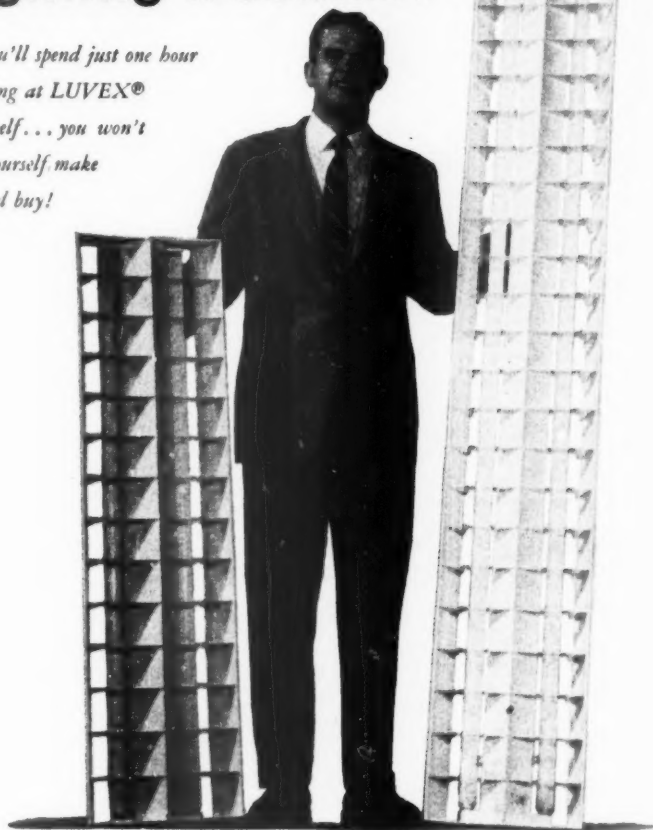
• **Nationalist Qualms**—If President Magsaysay declines to sign the bill, the reason will probably be a practical matter: If the foreigners don't run the retail business, who will?

Even with the freeze-out of aliens timed to take place gradually over a span of ten years, Filipinos admit retail business might be badly dislocated. Even if Filipino employees learn how to run the stores, they would have a hard time financing purchases of the businesses as foreign owners died or retired. Much of the money-lending that's accessible to the average Filipino is carried on by Chinese as a sideline of their stores. With these out of business, loans might be scarce.

• **High Politics**—U.S. business in the Philippines is protected now by an executive agreement signed in 1946, guaranteeing equal opportunities to Americans for 28 years. Manila gave this concession grudgingly when it seemed the only way to obtain post-war help in reconstruction and a 28-year trade concession. The Philippine

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EXECUTIVE PROBLEMS

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government has interpreted the "equal opportunity" clause as applying only to American participation in utilities and the development of natural resources.

Up to now, however, no restrictions have been laid on foreign-owned retail businesses, so the American store owners haven't made an issue of the island government's interpretation. The only discrimination against them has been the government's policy of favoring native dealers in making purchases for national use. This favoritism is prescribed by the Philippines' Flag Law, similar to our "Buy American" act.

• **Uncertainties**—Now, however, U.S. businessmen in the islands are worried about how the new law might be interpreted. They are hoping that Magsaysay won't sign the bill, but they fear the worst.

The new law leaves it largely up to the Administration to decide what comes under the definition of retail trade. If it is interpreted as applying to companies such as those that import and retail oil or that assemble automobiles for sale to the public, more than half the U.S. companies in the islands could be closed down at the discretion of the Manila regime.

U.S. owners of mines and lumber plantations—examples of the protected developments of natural resources—

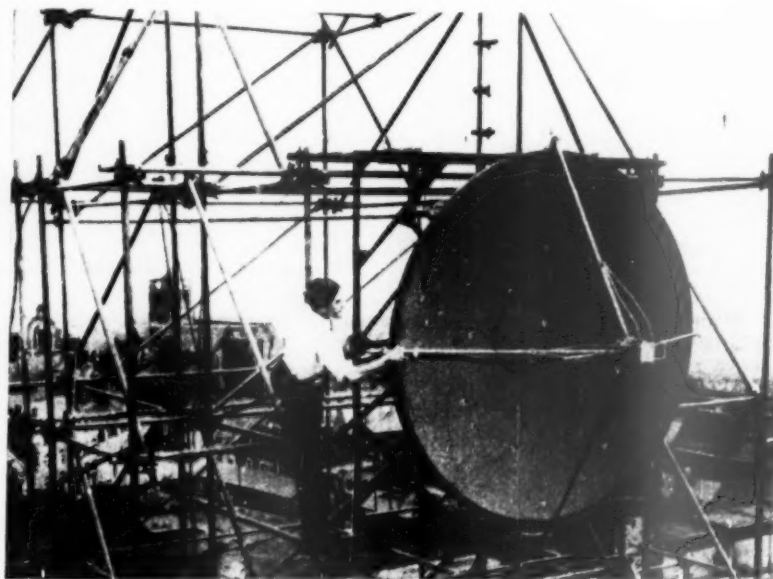
are concerned by the feature of the new bill that terminates ownership with the owner's death. Though Americans can't buy real property in the Philippines after 1974, they had always taken for granted that present ownership could be passed to heirs or retained by corporations after that date. Now they wonder.

Americans in business on the islands take little comfort in a clause of the trade treaty that allows the U.S. President to abrogate the treaty if U.S. citizens are discriminated against. They doubt that this clause would ever be invoked, since to do so would fan nationalist sentiment against foreigners.

• **Ill Effects**—Enactment of the anti-foreign law would have two probable effects on policies abroad:

• It would discourage, perhaps cut off, future U.S. investment in the islands, now estimated at \$150-million. Up to now, the Philippines had talked of wanting more U.S. investment to help relieve severe unemployment.

• It would offend other countries, particularly Nationalist China and India, at a time when efforts are being made by the U.S. to build up a South-east Asia alliance. It is considered quite likely that both Chiang Kai-shek and Nehru would recall their envoys in protest.



Another Link for Eurovision

The first intracontinental TV hookup linking eight countries in Western Europe got its newest addition last week when a relay antenna was put up in Cascel, France (above). The new TV system—consisting of 4,000 miles of linkage and 80 relays feeding 44 stations—got its first tryout this month with two telecasts from Rome and Switzerland.

That's to be followed with an exchange of 30 programs a month among the member countries. The French are anticipating increased viewing by putting up more transmitting stations. Fourteen will be built over the next few years. That'll boost the French TV audience to 17-million, according to a government estimate.

BUSINESS ABROAD BRIEFS

First repayment on German corporate bonds held by U.S. citizens will be made after June 30 by Robert Bosch Co., Stuttgart manufacturer of electrical and diesel equipment. Paying agent: Brown Bros. Harriman & Co., New York City.

Brazil's import clampdown on raw rubber, stemming from its trade deficit, may make it tough for the country's car owners to get new tires. The rubber-short Firestone plant in Sao Paulo has already suspended production and others may follow soon.

A third British steel firm—Stewarts & Lloyds—is headed for the block under the steel denationalization act. Shares go on sale next week. British investors have already had a chance at shares of Lancashire Steel Corp. and United Steel Companies this year (BW—Jan. 30'54,p1116).

Swedish auto makers are the latest to grab for a bigger market in Latin America. Volvo Automobile Mfg. Corp. will make a bid with a plastic-body sports car.

Jeep caravans of Willys-Overland Export Corp., on a promotion tour abroad that will hit 25 countries, are chalking up record sales. Between March and May Willys unloaded close to 13,000 cars—tops for any three-month period in the export company's history.

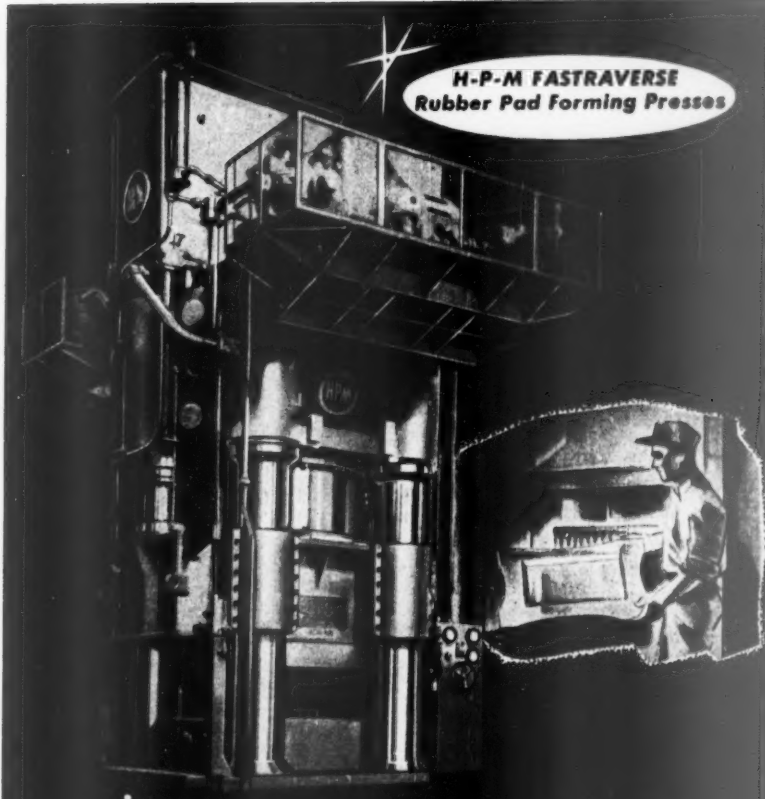
U.S. companies are staging their own trade shows in Latin America to meet increasing European competition. Amertool Services, Inc., a Cincinnati combine of 16 U.S. machine tool makers, is currently exhibiting its wares in Mexico City. Earlier this year the Mexican capital was the scene of a big West German trade fair (BW—Apr.3'54, p154). Amertool is offering to meet German credit terms by selling machine tools for 25% down and three-year terms for the balance.

Cincinnati Milling Machine Co. this week inaugurated a new plant in Vlaardingen, the Netherlands. The Ohio company is one of the U.S. firms recruited by the Dutch in their big drive for new investment in Holland (BW—Dec.19'53,p130).

West Germany's chemical giant, Farbenfabriken Bayer A. G. of Leverkusen, is going to help Argentina build an aniline dye plant. Local interests are slated to put up 55% of the investment.

BUSINESS WEEK • June 19, 1954

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THE MARKETS

Recent New Issues: Their price record thus far

Moody Rating	Amount (Mill.)	Issue	Offering *Price	Level Yield	Recent *Bid	Level Yield
April Offerings						
AA	\$12.0	West Penn Power 3s, 1984	100.50	2.97%	99.87	3.03%
AAA	50.0	Commonwealth Edison 3s, 1984	100.39	2.98	100.00	3.00
A	15.0	Utah Power & Light 3 1/4s, 1984	101.93	3.15	102.00	3.14
May Offerings						
AA	20.0	Wisconsin Elec. Pow. 3 1/4s, 1984	102.46	3.00	102.00	2.99
AAA	25.0	N. J. Bell Tel. 3s, 1989	101.00	2.95	100.25	3.02
A	15.0	South In Counties Gas 3 1/4s, 1984	101.93	3.15	101.25	3.18
AA	6.0	Montana Power 3 1/4s, 1984	102.66	2.99	101.50	3.04
A	40.0	Northern Nat. Gas 3 1/4s, 1973	101.45	3.15	102.50	3.06
A	7.5	Iowa Pub. Service 3s, 1984	98.37	3.08	98.12	3.10
A	18.0	Montana Power 3 1/4s, 1979	101.72	3.15	101.75	3.15
AA	25.0	Va. Elec. & Pow. 3 1/4s, 1984	102.46	3.00	101.75	3.02
AA	65.0	Pacific G. & E. 3 1/4s, 1984	100.87	3.08	101.00	3.06
A	20.0	N. Y. State G. & E. 3 1/4s, 1984	102.42	3.12	103.00	3.10
AAA	25.0	Consol. Nat. Gas 3 1/4s, 1979	101.83	3.02	102.00	3.00
AA	50.0	Public Ser. G. & E. 3 1/4s, 1984	102.91	3.10	103.62	3.06
A	8.0	Calif. Elec. Pow. 3 1/4s, 1984	100.95	3.20	=	=
June Offerings						
BAA	5.0	Reliance El. & Eng. 3 1/4s, 1974	99.62	3.40	=	=
A	20.0	Fruehauf Tr. 3 1/4s, 1974	100.00	3.75	=	=
AA	100.0	Alum. Co. of Amer. 3s, 1979	100.00	3.00	100.00	3.00
A	10.0	Southwestern G. & E. 3 1/4s, 1984	101.54	3.17	=	=
A	12.0	Mountain Fuel 3 1/4s, 1974	99.25	3.17	=	=

* % of par = \$100 in syndicate

The Bond Market Cheers Up

Two happy events took place last week: (1) The big new Alcoa issue sold unexpectedly well, and (2) New York City pension funds bought part of two hard-to-sell offerings.

When Wall Street's underwriting houses opened for business this week, they were feeling somewhat more chipper than they have for a long time. Two things had happened last week to cheer them up:

- One of their most acute worries of early June was erased completely. This worry had involved 1954's heftiest piece of new corporate financing—\$100-million of 25-year Aluminum Co. of America debentures. Underwriters had feared that the yield of this issue, at public offering, would not coincide with buyers' recent ideas of a "satisfactory" rate (BW—Jun. 5 '54, p. 56). As a result, underwriters envisioned a poor reception for the offering. But it turned out that the Street syndicate handling the issue hit the bullseye with its pricing. When the issue finally reached the market last Wednesday, it quickly proved one of the fastest-moving items underwriters and dealers had had the pleasure of handling in many a day.

- The second cheery turn of events

was brought about by New York City pension funds. Unexpectedly, they sent in orders for two recent offerings that, until then, had been moving very stickily.

- **On the Move**—The action of the New York pension funds, coupled with the ready welcome given the Alcoa offering, touched off a flurry of buying by other institutional investors. The spate of orders proved heavy enough, and long-lasting enough, to move a fair amount of inventory off dealers' shelves. This inventory—unsold remnants of "sour" offerings—has been lying around for a long time.

There are no estimates, so far, of exactly how much inventory moved into investors' portfolios. But there may be an indication in the fact that New York banks' loans to brokers dropped some \$114-million last week. Most Wall Streeters attribute much of this drop to underwriters' finally repaying loans made earlier by the banks. Underwriters had borrowed the money

to buy issues that subsequently proved sticky—and then came unstuck last week.

• **The Right Price**—The syndicate handling the Alcoa debentures set the price at par. The bonds bore a 3% coupon; hence, the yield was 3%.

The syndicate, made up of 177 members and headed by First Boston Corp., did much preliminary probing of the market before it arrived at the price. During this preliminary research, the syndicate located some investors who indicated they would be interested in buying the bonds even on a yield basis as low as 2.90%. But it was soon discovered that these investors were in the minority. Indeed, some bond experts probing the market got the feeling that a return of 3.05% might be necessary to attract buyers. Still other probers concluded that even 3.05% might not be high enough.

Finally, however, the syndicate decided on a temporary offering yield of 3%. The news was passed on to important institutional investors that had been consulted during the survey. The decision was not popular with some of these investors; and at first, there was a lessening of interest in the bonds. But enough other buyers were found to fill the gap. And soon, the temporary 3% became permanent.

• **Attraction**—The syndicate had good reasons for its first tentative decision to launch the bonds at 3%. It knew that the big institutional investors, main buyers of today's large corporate offerings, have been shying away from even high-grade bonds offering yields below 3%. But it also knew that these investors will buy high-grade bonds at 3% if the bonds have extra attractions.

The Alcoa bonds have one very attractive feature. They are not true 25-year bonds. Terms of the issue provide that the debtor must retire \$4.1-million of them annually, through a sinking fund, beginning two years from now. This means that roughly 33% of the offering will be retired in 10 years, roughly 54% in 15 years. Thus, many purchasers last week were getting topnotch 10-year or 15-year corporate paper at a yield much better than can be had elsewhere on comparable obligations.

• **Off the List**—All that gave the new issues market a big lift last week. So did the action of the New York City pension funds.

The city's Board of Estimate had paved the way by granting a request of city comptroller Lawrence F. Gerosa. It gave Gerosa permission to invest pension funds under his control in other than "legal list" bonds, in order

to improve the funds' yield. Gerosa's first move to take advantage of the board's ruling could hardly have come at a better time, from the viewpoint of the new issue market, than last week.

Early in the week, Gerosa placed an order for some \$3.7-million of Public Service Electric & Gas Co. 3½% long-term bonds. The group handling these bonds had been trying to retail them on a 3.1% yield basis for a long time—and had had little success until Gerosa turned up. Later, Gerosa placed a second order. He called for \$5-million of Pacific Gas & Electric 3½s. This offering, at 3.08%, had been as unsuccessful as the Public Service issue.

Gerosa's purchases made other important bond buyers take a second look at the Public Service and PG&E offerings, and at other new issues they had previously scorned. As a result, underwriters suddenly found themselves in their best inventory position in weeks.

• **Municipals**—Some of the cheer in the corporate market seems to have spilled over into the municipal bond market.

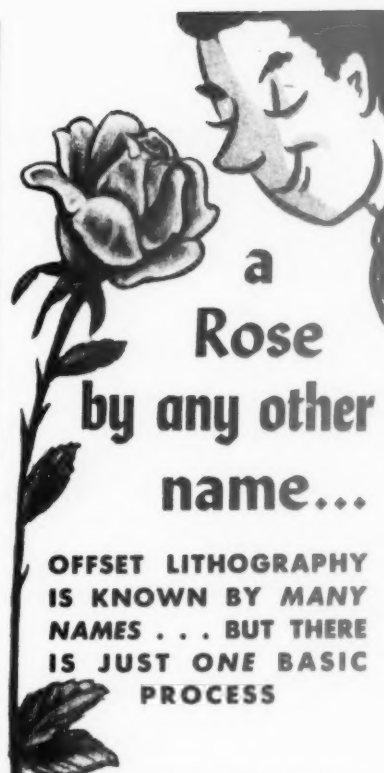
It's true that municipal prices are still moving downward a bit. Last week, the Dow-Jones municipal bond index—which moves conversely with prices—rose to 2.49% from 2.48%, where it had stood seven days earlier. That is its highest level since early in January.

But municipal dealers have been able to move some of their heavy inventory during the last two weeks. On Monday of this week, advertised remnants dropped to \$220-million—from \$256-million on Monday of last week or to its lowest figure in over a month.

It's hard to say, just yet, whether these developments in the corporate and municipal new issue markets forecast a quick and complete recovery from the markets' attacks of indigestion. Most bond men agree with Moody's money market experts, however, that (1) "the large volume of corporate and municipal financing during the past few months will soon recede to manageable levels," and (2) "thus, the market for recently issued and seasoned bonds seems to set for price betterment."

The municipal market, incidentally, was slated to receive a thorough testing this week. Wednesday morning saw a 475-member selling group take on the job of retailing \$300-million new New York State Thruway Authority general revenue bonds.

Earlier, dealers generally had been worried about the possible unfavorable impact this offering—one of the biggest on record—might have on the market. This week, however, they were confident it would prove a "quick sell-out."



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LABOR



NEGOTIATORS: Union's McDonald (left) and U.S. Steel's Stephens are setting . . .

New Pattern in Steel Talks

Both Big Steel and CIO Steelworkers are making strong effort to break with past ritual of attack and counter-attack—and the prospect is peaceful agreement.

John A. Stephens (right in picture above), industrial relations vice president and chief labor negotiator for U.S. Steel Corp., gave the United Steelworkers (CIO) the corporation's answers to the union's 1954 contract demands last weekend. And this week, negotiations in the bellwether industry settled down to business.

• **Pacific**—Steel contracts run out June 30. Bargaining pressure is now growing along with the anxiety of industrial users of steel. But despite formidable demands submitted by the union in May (BW—May 29 '54, p110), there is a general confidence shared by the parties—that steel faces no shutdown the end of this month.

The mild tenor of the negotiations so far "very friendly," both parties agree—is a pretty clear indication that if no settlement can be reached before the termination date of the present agreements, the contracts probably will be extended.

Altogether, although the negotiations in the Pittsburgh Room of the Hotel William Penn, in Pittsburgh, may produce nothing that differs in substance from results of past negotiations, the

manner of arriving at the result is decidedly unusual.

• **Old Pattern**—As in other big industries that were successfully stormed by the CIO in the turbulent 1930s, the behavior pattern of bargaining in steel has long since become standard—and unpleasant. The established routine would run about like this:

First, well in advance of a contract expiration date, the union would rend the public ear about the industry's swollen and unconscionable profits. The picture drawn was of some antisocial octopus battenning on the people for its own suspicious or evil ends.

Second, also in advance of actual negotiations, the public heart would be wrung by descriptions of exploited workers, the long-suffering employees of brutal profit-seekers. Implicit, always, in this part of the script was a theme of menace: At long last steel labor was going to make a stand against the vicious corporations.

Third, when bargaining actually began, the union would come in with a package of demands big enough to bankrupt the industry and various enough to turn it inside out.

Fourth, when the industry rejected those demands and made counteroffers, it would be mocked and scorned. "Rank-and-file restlessness" and "unavoidable strike" would become the slogans of the day.

Fifth, there would be a feverish period of alarms and deadlines. The question of whether the industry would be shut down was touch and go.

Then, sixth, either after a strike was on or practically at the zero hour, there would be a settlement and the show was over for another year or two.

• **Ritual**—To be sure, this far from innocent routine on the part of the union was matched, almost point for point, by equally calculated industry tactics. The result was something resembling a ritualistic dance in which each of the partners is committed to an established role from which it would be unthinkable to depart.

Perhaps the development of such ritual is inherent in most union-management relationships in the U.S. Certainly the steel industry has not been unique in this. But just as its wage movements have a widely rippling effect over the economy, the behavior pattern in relations between the industry and the big union with which it deals gets at least some emulation beyond the mill towns.

• **Changes**—Therefore, any significant change in this pattern will affect an area broader than the steel industry. And that appears to be exactly what is happening now in Pittsburgh.

Although the standard ritual has not been completely revised, both Big Steel and the union are making a valiant effort to break with the past; to conduct bargaining in a way less primitive, less nerve-racking, and less dangerous.

Note the differences:

• There was little or no prebargaining propaganda designed to stir public opinion; true, USW publicized its general demands long in advance, in public meetings last fall in New York (BW—Oct. 31 '53, p150) and at wage-policy conferences earlier this year in Pittsburgh—but, compared with other bargaining years, the tone of the union arguments was mild and conciliatory.

• There was little or no pressure applied internally by the union, calculated to inflame its membership.

• There was no talk of strike; USW's president David McDonald even told reporters not to regard the June 30 date as a strike deadline, but simply as a contract termination date.

• There was no public exhibition of contempt by the union for the steel corporation's counterproposals. Asked about them this week, a union spokes-

man commented only that everything was still general, nothing had crystallized yet. He added that he had heard, at midweek, "nothing that anyone could possibly interpret as being a wage offer." Despite that, the union was saying nothing angry.

• McDonald called USW's wage-policy committee to meet in Pittsburgh Tuesday, and announced that the union's executive board would convene Monday. Although a wage-policy meeting is a usual prelude to a contract settlement—or a strike—the session next week reportedly was scheduled some time ago, in keeping with a McDonald policy of long-range bargaining and planning, and is intended to give union negotiators more flexibility by having USW policy-makers on hand, on a standby basis, in the final stages of contract negotiations.

• Promising—It is, of course, prudent to reserve any conclusions from all this until the negotiations are over and a settlement achieved. In labor relations as in most things, people of all sorts remain firmly attached to habits and, even after it looks as though these are broken, a sudden crisis may bring them back.

But so far at least, what has been happening in Pittsburgh's William Penn Hotel may turn out to be the most promising development in industrial relations since General Motors showed management in 1948 that it was possible to take the initiative in collective bargaining. If that proves to be the case, U. S. Steel's Stephens and the union's McDonald will be more than just the "men of the year" on the labor front.

Bargaining Roundup

... in Appliances

A strike of 8,000 employees of Philco Corp. in Sandusky, Ohio, and Philadelphia ended this week after 45 days. The settlement was based on a 3½% pay increase (about 6¢ to 8½¢ an hour) and 2¢ in benefits.

Among the "fringe" changes was an agreement by the company to pay the full cost (reportedly 9¢ a month per man) for increased hospitalization insurance. The company also agreed to huddle with the International Union of Electrical Workers (CIO) on company-financed pensions—to consider increasing benefits.

The wage agreement runs to May 1, 1955. Insurance provisions, and health and welfare provisions, will remain frozen until May 1, 1956, except for possible changes agreed on in the joint pension study.

Originally, Philco said a raise would be impossible under 1954 business conditions. It later offered a 5¢-an-hour increase (BW-Jun. 5'54,p140), but the union turned that down.

... in Transportation

Trolleys and buses, idle for five weeks, began operating again in Pittsburgh this week after 2,700 striking Pittsburgh Railways Co. employees accepted contract terms offered by the company. The new agreement gives workers a \$2.01-per-hour base rate, which means a 3¢ increase in take-home pay.

The old Pittsburgh Railways contract had a cost-of-living clause operating in conjunction with a \$1.92 base rate. Hourly pay, including that under the c-of-l clause, stood at \$1.98 when the strike started. The company offered to add the 6¢ c-of-l "bonus" pay to the regular base rate, to bring it up to the \$1.98 being paid, and to retain the c-of-l clause. The union rejected this some time ago.

Last week, the company offered a 3¢ increase over the \$1.98 that workers were being paid under the c-of-l clause at the start of the strike. It also agreed to retain the c-of-l clause—with the proviso that no c-of-l raises would be given under it until the Pittsburgh index (now 194.7) hits 198. Employees voted to accept the terms.

... in Paper

New York & Pennsylvania Co., Inc., paper manufacturer, and catch-all District 50 of the United Mine Workers last week signed a new contract giving wage boosts of 4¢ to 7¢ an hour to 2,400 employees in two Pennsylvania plants. The contract runs one year and has no wage reopening clause.

... in Construction

A new one-year contract, calling for a 10¢ wage increase, has been signed by Toledo contractors and 16 of Toledo's 21 AFL building trades unions, representing 6,500 workers.

Chicago's Cut Stone Contractors' Assn.—representing 23 companies—has signed a one-year contract with the city's AFL Journeymen Stone Cutters' Assn., with 104 workers. The contract continues present wage rates, provides hospitalization insurance for members and dependents, and gives five paid holidays.

Wage increases for building-trades workers in Chicago have ranged up to 20¢ an hour, with many settlements at about 15¢.



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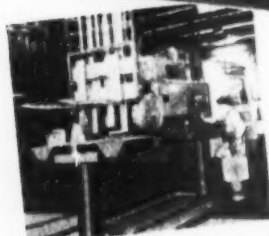
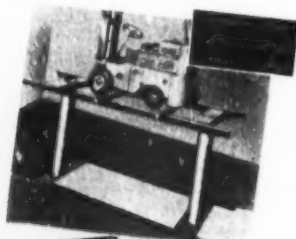


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AFL AND CIO leaders George Meany (left) and Walter Reuther check no-raiding pact as . . .

Unions Set Up Peace Machinery

Jurisdictional strife among 65 AFL unions and 35 in CIO is covered by pact leading, if necessary, to impartial arbitration.

Now that the ceremonies of signing the first AFL-CIO no-raiding agreement are over, leaders of the two federations are getting down to the job of making jurisdictional curbs work.

The peace treaty, signed last mid-week (BW—Jun. 12 '54, p. 166), now covers 65 AFL unions and 35 in CIO—with a total claimed membership of 10 million, about two-thirds of all unionized workers. There are only four holdouts in CIO, the biggest being the United Steelworkers. In AFL, 46 unions failed to sign, but George Meany, federation president, assured CIO that some 30 of the 46 are small craft unions that never come into contact with CIO unions.

• **Terms**—Under the no-raiding pact, which runs to Dec. 31, 1955, participating unions agree not to raid the membership of other participating unions. If a conflict over any group of workers arises, top officers of the internationals involved will try to work out a mutually acceptable settlement. If they can't, AFL and CIO officers will intervene. If they fail, the dispute must go to arbitration.

• **Referee**—David L. Cole, Paterson (N. J.) attorney and former head of the Federal Mediation & Conciliation Service, has been named impartial umpire of AFL-CIO jurisdictional disputes.

AFL and CIO leaders expect Cole's findings will be accepted as binding.

The agreement does not provide specifically for sanctions against any union that "persists in a violation" after arbitration, the drafters say, but they add that "the weight of union pressure" would probably be sufficient to end the continuing violation.



ARBITRATOR David Cole, veteran of federal boards, will referee disputes.

Written Contract...

... between union and Nash body plant ends era, begun in 1934, of unique labor relations.

For the first time in 20 years, union employees of American Motors Corp.'s Nash body plant in Milwaukee are covered by a written basic labor contract. Their ratification of a formal agreement—by a slim 3-to-2 margin—last week ended a situation unique in modern labor-management relations.

Ordinarily, a union goes after a written contract as soon as it takes over bargaining for a plant's workers. Local 75 of the United Auto Workers (CIO) was an exception, in 1934, when it became the agent for Nash body workers. It didn't insist on a written pact, although it was as tough at the bargaining table as most UAW locals—and, as a pioneer in the sitdown-strike technique in 1937, tougher than many.

• **Gentlemen's Agreement**—Bargaining with Nash went on regularly for two decades, but there was never a written basic labor contract (covering all except the economic terms of employment) because sometimes the union didn't want to be bound by one, and sometimes the company didn't.

Basic relations—union security, the grievance procedure, seniority, proportionate steward representation, and so forth—were governed by a "body of practices" never formalized in a contract. The economic terms of employment were handled differently. Wages, UAW's annual-improvement-factor raise, the cost-of-living "escalator" clause, pensions, insurance, and vacation and holiday pay were all negotiated on a national level, written into a hard-and-fast economic agreement, and ratified on the local level. A long-term, standard UAW contract incorporating the terms of employment at the Nash body plant runs to mid-1955; it isn't affected by the new basic agreement timed to expire with the economic contract.

• **Four-Year Job**—About four years ago, management of the Nash body plant called on Local 75 to work out a formal basic agreement. International UAW also urged the local to sign one. Dickering started over exactly what it should provide, but bogged down for two years. Then union politics and the beginning of the economic downturn caused local officers to reconsider their no-contract position. Slow-moving bargaining began.

It reached a climax when a first formal basic labor contract was placed before 1,500 local union members dur-

ing a sometimes heated three-hour meeting. Local 75's president, Claude Keim, urged its ratification because, he said, "the times now make it wise to have a written contract."

He told the membership that (1) under Wisconsin law it would be impossible to have a valid union-shop and checkoff agreement without a formal contract; (2) in a period of layoffs, it's important to have seniority guarantees in writing; and (3) because of layoffs, former union techniques for enforcing the unwritten agreements—brief slowdowns, sitdowns (used as late as 1951), and walkouts—aren't so effective as they once were.

• **Opposition**—Despite Keim's arguments, supported by the local's executive board, the written-contract proposal ran into stiff opposition. A strong faction argued that being bound to a contract would limit "freedom of action" by the workers. Another argued that negotiators should have exacted greater concessions from management. But, put to secret ballot, the written contract won.

• **Gains**—Generally, the agreement presents nothing new in the auto industry. But it does represent some gains for the plant management over the former unwritten "body of practices."

For instance, the new pact sets up a production-standards procedure, allowing management to set and enforce the rate of production—subject, of course, to grievance procedures. There's a standard management clause, spelling out the plant management's rights to hire, maintain discipline, and otherwise conduct its business. And the new contract bars wildcat strikes, sitdowns, and slowdowns, except in the case of strikes over grievances not settled in a six-step procedure. The union gets union-shop and checkoff clauses, seniority guarantees, and a clearly defined plan covering short-week operations and layoffs.

• **Pre-Merger**—Negotiations on the written basic labor agreement were under way before the Nash-Hudson merger into the new American Motors Corp. (BW—May 1 '54, p. 34). The change in corporate structure did not lead directly to the final decision to put the first basic labor agreement into effect at the Nash body plant (written contracts have been in effect, normally, at other Nash plants). But the merger is credited with making the contract easier to "sell" to employers—who are looking ahead to the problems of integrating Hudson body building into the Nash operation.

NLRB May Change, but Orders Stand

Board refuses to reconsider order issued by its Democratic-appointed predecessor, although chairman urges further study of basic issues involved.

Changes in the membership of the National Labor Relations Board are not grounds enough for reopening and reconsidering previous NLRB decisions, the board ruled last week in a case based on the shift within NLRB from a Democratic to a Republican majority.

The case, unique in NLRB's records, brought from the board, by a 3-to-1 vote, the statement that as "an independent, continuing, statutory agency of a quasi-judicial nature," NLRB will not "entertain any request for reconsideration of board action based solely on the ground of a change in the composition of the agency's membership."

The dissent, by NLRB chairman Guy Farmer, an Eisenhower appointee, agreed that changes in membership do not constitute sufficient ground for "reopening and reconsidering cases previously adjudicated." But Farmer thought the board should go into a legal issue raised in the proceedings.

• **GOP Majority**—NLRB got its first Republican-appointed majority in two decades when the Senate confirmed Albert C. Beeson for a vacant fifth seat on the board (BW—Feb. 13 '54, p. 163).

Before that, since mid-1953, the board was evenly divided between two holdovers from the Truman Administration and two members named by President Eisenhower.

Even before the Beeson appointment, the board obviously was shifting away from past policies and practices, with the newcomers getting support from one Democratic holdover. The chairman announced that NLRB proposed to review—and possibly override—policies of its predecessor board. It has been doing that pretty consistently since then.

• **Policies Only**—Reviewing broad policies and reviewing specific decisions are entirely different matters, according to the board.

The Truman-appointed NLRB found Wagner Iron Works, of Milwaukee, guilty of unfair labor practices against the United Auto Workers (CIO) in a decision handed down in April, 1953. NLRB held then that the company had aided AFL's Bridge, Structural & Ornamental Iron Workers during a UAW campaign to oust AFL.

After the political alignment within

NLRB shifted, Wagner Iron Works petitioned for a review of the earlier decision. The request was argued before the board, and then denied.

Ivar H. Peterson, a Truman appointee, and Philip Ray Rodgers and Beeson, both Eisenhower appointees, signed the decision. Another holdover, Abe Murdock, did not participate.

• **Farmer's Dissent**—In dissenting, Farmer outlined his views on the status of decisions involving board policies altered by a change in NLRB membership. His position got a lot of close attention this week from companies, like Wagner Iron Works, that feel they have a genuine dispute with a former board decision—and have something to gain from trying to upset it.

Since the board has a "continuing responsibility" to enforce its decisions in appellate courts, Farmer said, this "places us in the position of having to reaffirm, before the courts, legal interpretations made by our predecessors in cases in which we did not participate and therefore [have had] no opportunity . . . to form a considered judgment." Farmer argued that where legal issues are raised, requiring an interpretation of the Taft-Hartley law, the board should go into the merits of a case.

New Election Called For Big GE Plant

The National Labor Relations Board last week ordered a representation election "within 30 days" to end a union dispute over 19,000 employees of General Electric's big Schenectady (N.Y.) plant. At the same time, NLRB also scheduled a poll of 872 employed at GE's Newark (N.J.) operation.

Both elections—and another test of strength that's in the making at GE's Erie (Pa.) works—involve the leftwing United Electrical Workers and the rival, anti-Communist International Union of Electrical Workers (CIO).

• **Big Switch**—Leftwing UE's Local 301 was undisputed bargaining agent for production employees in GE's Schenectady plant until a couple of months ago. Then, in a surprise move, its leaders won overwhelming support for secession from UE and quick affiliation with IUE. The CIO union now claims to represent the bulk of the Schenectady plant workers; so does UE.

IUE petitioned NLRB for an election shortly after Local 301 shifted out of UE. On a technicality—a claim that the existing GE contract is a bar to an election at this time—UE opposed the poll. NLRB dismissed the UE argument and ordered the election. The ballot is to offer a choice of UE, IUE, the International Assn. of Machinists (AFL), or "no union."

Where to Cut?

When business is slack, some unions prefer a shorter work week, no layoffs. Others take the opposite view.

If management needs to slacken production:

- Should it cut the work week and spread work over the full labor force?

- Should it keep the plant operating full-time and lay off workers?

Unions as well as employers are debating these alternatives. Opinions differ from union to union, and even within a union group.

- **One Viewpoint**—Two weeks ago, the United Auto Workers (CIO) reiterated its policy against shortened schedules. It announced from Detroit that "to keep their work force intact . . . for competitive position" in the future, companies should avoid short weeks—even if it means periodic full-week shutdowns.

About the same time, Local 1031 of the International Brotherhood of Electrical Workers (AFL) called on Chicago employers of its 37,000 members to lay off any employees for whom there is less than four days' work a week—because "workers completely laid off and collecting \$27 a week compensation are better off than they would be working less than four days a week," the union said.

And, taking much the same position, a high official of the United Steelworkers (CIO) opposed any "share the work" plan as a step that would "cripple buying power even more—and mean less work."

- **Opposite View**—On the other hand, the independent International Die Sinkers' Conference urged employers to reduce the work week of all employees before laying any off—because, according to the union, it's "better for all to have a little than for some to have all and others nothing."

- **Seniority Issue**—The union case against shortened work weeks for everybody has a lot more behind it than just UAW's announced reason: to keep the employer's work force intact. High-seniority employees object pretty strongly to cuts in their hours—and pay—to save the jobs of younger employees.

As an example, when a USW local at Crucible Steel's Midland (Pa.) plant agreed recently to a four-day week in order to spread the work, older seniority people forced a return to the full, 40-hr. week, even though it meant layoffs for 500 steelworkers. The issue is being put before the full local for a majority-vote decision. A Birmingham (Ala.) local of USW, in a similar situa-

tion, voted 558 to 234 for a four-day week.

- **Gains and Losses**—In addition to interest in welfare of high-seniority members, three reasons prompt unions to go after the full work week, with periodic shutdowns when necessary:

- **Tax-free jobless benefits** in most states come pretty close to the after-tax wages for a shortened week. Those who are laid off don't suffer much, and senior employees still get their full pay, the unions contend.

- **General layoffs** push the employer's tax costs up in states where unemployment compensation plans have merit-rating clauses. Unions feel this will speed employers to work out plans for employment stabilization or, perhaps, some form of guaranteed pay.

- **Finally**, unions feel, the alternative of reduced hours of work leads to uncertainty and unemployment fears among workers—and makes them less aggressive in supporting the unions at the bargaining table or in day-to-day labor relations.

LABOR BRIEFS

Laying off workers who refuse to use a company's products isn't illegal if there is a traditional unwritten agreement among employees to use them since "it is in the economic self-interest of employees to support the company's products," Arthur Neff, an NLRB trial examiner, ruled that way this week in dismissing unfair-labor-practice charges against Studebaker Corp. and United Auto Workers (CIO), brought by 35 workers laid off—at UAW's urging—when they purchased new cars that weren't Studebakers in 1953 (BW—Dec.19'53,p162). The full NLRB may be asked to review the examiner's decision.

- **Fur & Leather Workers**, the leftwing union ousted in 1950 by CIO, may be absorbed by AFL's Meat Cutters & Butcher Workmen. Negotiations are under way, with the AFL union making clear that "Commies will be out . . . if we do take them over."

- **The Massachusetts law** empowering the governor to seize struck industries essential to public health and safety has been revised. In the future, a moderator named by the governor may make immediate efforts—by mediation and conciliation—to settle the dispute. Before, the moderator had to stay on the sidelines for the first 10 days, while the parties made a last stab at an agreement. The revised law also authorizes the governor to "request" the parties to submit their differences to arbitration.



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PERSONAL BUSINESS

BUSINESS WEEK

JUNE 19, 1954



Summertime brings its own medical problems, annoyances, and hazards. New scientific developments and advice from authorities can help you avoid some of them.

Probably the biggest single problem is poison ivy, which occurs nowhere in the world except North America. It can be serious. Until recently, the rash had to run its full two-week course; there was no consistent cure.

Cortisone (which must be taken internally) or hydrocortisone (which can be applied as a salve) stops itching within a few hours, clears up severe cases of poison ivy within a few days. There's no danger of undesired side-effects because the hormones are taken for a short time only.

Get rid of poison ivy plants. Weed-killers work best if applied on hot days. Protect valuable plants close to the ivy with a cardboard shield carried on your arm and held between the spray and the plant you want to protect.

Above all, don't burn poison ivy carelessly. It's no old wives' tale that the smoke carries the toxic oils. It does—and can result in severe cases.

Here are some other ailments common to summer, with suggestions from medical and drug authorities on what to do about them:

- **Sweat losses.** That tired feeling on a hot day comes from loss of water and salt through perspiration. Offset water loss by "forcing fluids"—as in treating a fever—by drinking water on a regular schedule, whether thirsty or not. Some authorities say that abundant salting of food is preferable to the use of salt tablets as a means of replacing lost salt.

- **Prickly heat.** This skin rash is caused by plugging up of sweat glands, which then become infected. Two research doctors say the best preventive they have found is to work or sleep in an air-conditioned room; eight hours a day of cool air seems to "clear" the sweat-gland openings.

If you can't get cooled off easily, try talcum powder or calamine lotion as a treatment if you get prickly heat.

- **Muscle injuries.** Unaccustomed athletic activities bring on "charley horses," "tennis elbow," and other painful muscular inflammations. Current medical reports state that these can now be relieved in a few hours in many cases with a single injection of hydrocortisone.

- **Hay fever and seasonal asthma.** Desensitization shots don't always afford complete relief. If you have hay fever, try supplementing shots with one of the newer and more effective antihistamines, such as Tephorin.

Medical authorities consider antihistamines of little or no value in asthma treatment. But many attacks can be aborted or prevented with a drug called Tedral.

- **Insect bites.** Cortisone and ACTH are standard treatment now for black-widow spider bites and severe bee stings. For troublesome mosquito bites, use an antihistamine ointment like Tephorin.

- **Swimmers' itch.** You're likely to get this week-long skin rash from small, sheltered lakes, especially in the Midwest. It's caused by a microscopic larva that infects snails and waterfowls.

Since there's no cure for the itch, best bet is to eliminate infected snails

PERSONAL BUSINESS (Continued)

BUSINESS WEEK

JUNE 19, 1954

from the pond by treating with copper carbonate or copper sulfate. Wave-swept beaches are usually free of the parasite.

• **Motion sickness.** Long vacation trips may bring on sickness in some people even if the motion is moderate. A single dose of a new drug called Bonamine protects most people against it for at least 24 hours. (Note that the drug also works on dogs susceptible to motion sickness.)

Incidentally, **take a first-aid kit** on a vacation auto trip. As a bare minimum, the American Red Cross recommends: six 1-in. adhesive bandages, two 3-in. bandage compresses, one square yard of sterile gauze, a triangular bandage (which can double as a tourniquet), and a tube of burn ointment.

—•—
There's a good variety of literature for hammock reading this summer. Here are a few suggestions:

Suspense fans will want to get Raymond Chandler's new title, *The Long Goodbye* (Houghton-Mifflin, \$3), and *The Exploits of Sherlock Holmes*, a new book about the old master by Adrian Conan Doyle and John Dickson Carr (Random House, \$3.95).

In more **serious fiction**, note particularly *A Time to Love and a Time to Die*, a World War II novel by Erich Maria Remarque (Harcourt Brace, \$3.95); *The Power and The Prize*, by Howard Swiggett (Ballantine, \$3.50), a novel about big business deals; and *A Pride of Lions*, by John Brooks (Harper, \$3.50), a new approach to the old gulf between the younger generation and tradition-bound parents.

Adventure lovers should look into *Living Dangerously* by F. Spencer Chapman (Harper, \$3); *Journey to the Far Amazon*, by Alain Gheerbrant (Simon & Schuster, \$5); and *Of Whales and Men*, by R. B. Robertsons (Knopf, \$4.50).

You'll find phases of U. S. History in *The Age of the Moguls*, by Stewart H. Holbrook (Doubleday, \$5), about the men who built America's greatest personal fortunes; and *The Old Country Store*, by Gerald Carson (Oxford, \$5), a reminiscence of life in a small community.

—•—
A dramatic new treatment for mentally ill patients may be at hand. Ciba Pharmaceutical Products reports that tests in mental hospitals of its new drug Serpasil (BW—Nov. 28 '53, p180) show that it calms the most violent patients, effects at least a temporary cure with some.

Says Dr. David Williams, superintendent of Modesto (Calif.) State Hospital: "Serpasil is the most wonderful thing I've seen in 25 years of working on mental disease."

—•—
Long-distance driving tires the right leg from constant pressure on the gas pedal. A new accelerator control allows you to rest your leg and maintain your speed.

Called Steadi-Drive, it consists mainly of a switch that you install in a convenient place for your left foot. If you are going 50, say, you can take your right foot off the gas pedal, and continue at 50 by holding your left foot on the switch. As soon as you lift your left foot, the pedal goes back to idling speed.

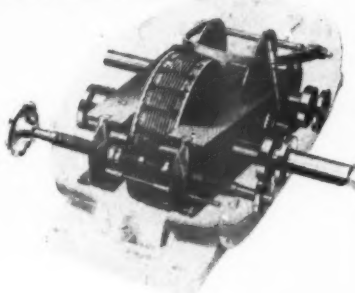
You can install the switch in a few minutes yourself. You can get it for \$7.95 from Walter B. Schnur, 557 Timpson Place, New York 55, N. Y.

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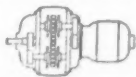
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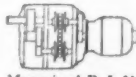
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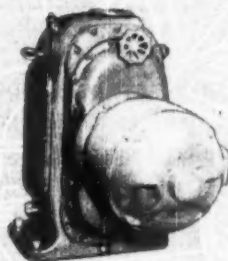
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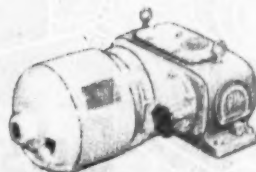
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Business Week Reports to Executives on:

FOUNDATIONS

- Nonprofit foundations are a changing and shapeless institution. They may be set up in many different ways, for many different purposes. ➡
- Much of the money that supports them might otherwise have gone to the tax collector. So the tax laws regarding foundations are written with the public interest in mind—and thus sharply limit their activities.
- Despite their handicaps, foundations have proved to be a tremendously useful device. That's the reason . . .

A Foundation Can Be Many Things . . .



Why Business Is Finding More

For a variety of reasons fiscal and spiritual, businessmen are playing an ever increasing part in creating and supporting nonprofit foundations.

The idea of setting aside wealth for philanthropic purposes or to immortalize a family name is as old as the pyramids. Foundations have sprung up in Europe, particularly in Great Britain, where funds were recently estimated at more than 20,000. But the multimillion-dollar broad-purpose foundation really came into its own here.

Measured in wealth per foundation, the movement may have passed its peak a generation or two ago, when a few very rich men were inspired to share their wealth through this device. Measured in numbers of foundations, the movement is right in the middle of its fastest growth—not because there are suddenly more rich people but because companies are taking up the idea.

In 1930, there were fewer than 250 foundations in the U.S. Today, a survey points to about 5,000 foundations, with \$3.2-billion in assets and a yearly outlay of about \$150-million.

• **How Far How Fast?**—A major share of this expansion is attributed to the so-called family and corporation foundations. To this degree then, corporations and family businesses hold the key to the future of foundations as a business device. The next few years will be crucial.

As it is today, the corporation tax of 52% and the individual income tax of up to 91% are so steep that high-bracket taxpayers can give to charity at relatively small cost. At the same time, exceptions for such contributions and for foundations' income from endowment funds are essential to keeping the nation's private philanthropy in a healthy condition.

Old as it is, the foundation is still quite new as a business device, and its range of uses may have been barely dented. You can see trends toward more participation by business, toward more foundations, and toward far less wealth for each foundation, on the average. Still, there's no hard pattern for the future of foundations in their new partnership with business.

Directly or indirectly, the uses and advantages of foundations are delimited primarily by the tax laws. And no one can say what the tax laws will be 10 years from now. The Revenue Act of 1950 has already killed the foundation as a profit-making business device; the Revenue Act of 10 years from now may plug more loopholes or may fling wide the doors for foundations—who knows?

In the end, the role that foundations play in the economy will be decided by

Avalon Foundation made a grant of \$25,000 in 1953 to restore the barn of Robert E. Lee.	Wenner-Gren Foundation has spent its \$340,000-plus each year on anthropological research around the world.	Guggenheim Foundation backs artists and scholars in every field of human knowledge, makes grants throughout the hemisphere.	Ford Foundation fields include world peace, education, freedom and democracy, world economic health, the human behavior sciences.
Schlieder Educational Foundation spends all its \$250,000 a year in Louisiana.	Z. Smith Reynolds Foundation gifts are centered in North Carolina.	Andrew W. Mellon Trust will liquidate by 1961 with all of its remaining \$30-million going to institutions in the Pittsburgh area.	Texas foundations such as Cullen, Amon Carter, M. D. Anderson, with total assets of more than \$500-million, spend almost exclusively within their home state.
Riegel Community Foundation backed by Riegel Paper Corp. supports a recreation area in New Jersey for employees and local residents.	Harbison-Walker Foundation helps build schools, hospitals, and churches in towns where the refractories maker has plants.	Frank E. Gannett Foundation makes gifts in communities served by the donor's newspapers.	U.S. Steel Foundation, set up last year with an initial grant of \$12-million, will spend to meet "the needs of the many communities and areas in which [the corporation] has an interest."
Walt Disney Foundation, set up by the cartoonist's studio, finances research in the field of visual education.	James F. Lincoln Arc Welding Foundation, with donations from Lincoln Electric Co., makes grants for welding studies.	Weyerhaeuser Timber Foundation gave Yale's Forestry School \$100,000 last year for research and fellowships.	National Vitamin Foundation, supported by the pharmaceutical industry, makes grants to schools and hospitals for studies in vitamins and nutrition.
Le Tourneau Foundation holds 88% of the common stock of the heavy equipment builder — worth at least \$20-million.	Ford Foundation holds 90% of Ford Motor stock — all nonvoting — on the books at \$400-million, but probably worth much more.	Cullen Foundation owns oil land valued at \$160-million by its donor and at half that much by outsiders.	Rockefeller Foundation, with half its assets in Standard Oil of New Jersey shares, owns 4% of the company's stock.

Uses for Foundations

what proved to be best for the public interest.

• **By Definition**—This raises the questions: What are foundations? What do they do?

It isn't easy to answer these questions. Not all groups that call themselves foundations really are foundations—the National Foundation for Infantile Paralysis, for example, is a fund-raising agency rather than an endowed foundation. On the other hand, the Carnegie Corp. and the General Education Board are foundations without bearing the title.

There is a general, working definition of a foundation. The American Foundations Information Service, a clearinghouse of data on foundations, says a foundation is any autonomous, non-profit legal entity that is set up to "serve the welfare of mankind." It administers wealth that is transferred

to it through tax-free gifts or bequests.

A foundation can earn tax-free profits through investment or activities related to its specified purposes. Since 1950, it cannot venture into unrelated fields to make profits, else it will have to pay taxes on that income.

• **No Prototype**—Beyond these points, it's impossible to generalize. There is no such thing as a "typical" foundation. According to Wilmer Shields Rich of the Foundations Information Service, they are "the least stereotyped of all the organizations in our country."

The chart above shows how foundations vary in operations, purposes, and means of support.

• **Motives**—Similarly, there's a variety of reasons why companies want to create or support foundations:

- To systematize the charity contributions they would make anyway.
- To make a bigger play for local

and national goodwill by consolidating and expanding their contributions.

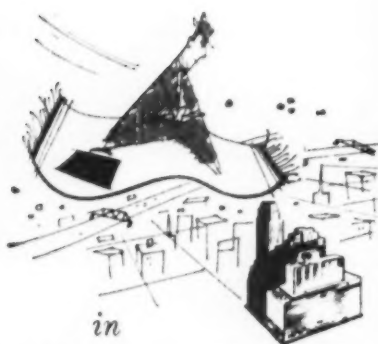
• To encourage research in their own industry, the training of technicians needed by their industry, or—in the new consciousness of the role of companies as citizens—merely to back research or cultural projects that benefit the general public.

• In the case of closely held corporations, to maintain the family's control of a company by giving much of the stock to a foundation instead of having to sell it publicly in order to pay inheritance taxes.

• To perpetuate themselves as institutions by transferring ownership entirely to a foundation.

• Most compelling of all, to save taxes on profits and inheritance taxes for their major owners.

This last reason is often cited as the key to the increase in number of foundations from 250 to 5,000 in less than 25 years. If it is true that most of this increase is in foundations created by corporations, the transfer of wealth



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Foundations

from the public domain to independent organizations can raise thorny social and political problems. For example:

- Controlling interest of a corporation is transferred to a nonprofit foundation. The foundation doesn't take the place of the corporation itself; it takes the place of a majority stockholder. Its board of trustees is usually synonymous with the board of directors of the company; as its membership changes, so does the board of directors—until eventually the business may be run by people who aren't answerable in any way to the other stockholders.

- As a stockholder, the foundation wants earnings from its shares, so it can carry out its philanthropic function. But it ordinarily doesn't feel the same urgency for dividends that individual

shareholders feel. That can cause friction in the management of a company.

- Because they are established in the public interest and largely financed by tax-exempt money, the public has a big stake in foundations. Yet it has little or no direct control.

- At the same time, as more corporate profits are distributed tax-free to foundations—up to the limit of 5% of profits—the government will have to find new sources of revenue.

Yet there's no question of the respectability or popularity of the foundation as a device for performing good works. Even the federal government has its own foundation: the National Science Foundation, established by Congress in 1950 with authorization to grant up to \$15-million a year.

I. More, but Not Much Richer

A paradox of today can be read into the concentration of wealth in a few, mostly older, foundations. The American Foundations Information Service will publish a survey later this year, and the figures cast light on this situation: a tremendous increase in foundations numerically but no great gain in total wealth of foundations.

AFIS estimates there were between 200 and 250 foundations in 1930, but these were mostly very large in assets. Now AFIS has records on 3,873 foundations that meet its definition; it expects to have data on another 200 or so by the time the survey is published, and it estimates another 1,000 or more exist but don't give out any information.

Of the 3,873 foundations studied by AFIS, only about 75 have assets of \$10-million or more. And only about 475 can claim more than \$1-million of assets. These comparatively few foundations manage the bulk of the \$5.2-billion total wealth. The remaining 3,400 altogether have only about \$500-million, which is less than, say, the Ford Foundation alone has.

- **The Newcomers**—The hard truth is that the country has just about run out of great family fortunes to establish the mammoth foundations of the Andrew Carnegie and John D. Rockefeller era. The Ford Foundation, as expanded in 1950, may have been the last important one.

It was the operation of the great foundations of the early 1900s that led to their description as "next to the

church, the school, and instrumentalities of government . . . perhaps the most influential group in American life."

The early foundations had little, if anything, to do with tax considerations. Carnegie and Rockefeller had already begun their large-scale giving when Congress passed the income tax law of 1894, later ruled unconstitutional, and they were well on their way when the income tax amendment to the Constitution was adopted in 1913.

The newcomers, on the other hand, seem to have a great deal to do with tax matters. And the springing-up of a host of relatively small family and corporate funds starts a new era.

- **Narrower Field**—It can also be the start of a new era in the activities of foundations. For the vast areas in which the earlier foundations provided the venture capital that wasn't available elsewhere—the public libraries and medical schools, the attacks on yellow fever and hookworm—have been largely worked out or taken over by government money.

With the old-style big projects lacking, foundations are turning more and more to less spectacular and often controversial smaller areas of support and exploration: interracial problems, education methods, foreign technical aid.

This results in more and smaller grants—which happens to fit in well with the trend toward more and smaller foundations. It also brings the activities of foundations under increasing scrutiny by the public.

II. Tax Advantages—and Dodges

The most obvious point where the public has its say is in tax treatment of foundations. This affects particularly the horde of new funds that have been set up largely to escape high tax rates on

earnings and estates. Hence, the public holds a life-or-death verdict over most foundations.

- **Tax Situation**—The way the law reads now, a man can deduct up to 20% of

his gross adjusted income, in figuring his federal tax, for contributions to charity, including foundations of his own creation. For a man in the 80% tax bracket, this means that each dollar he gives away costs him only 20¢—the amount he would have had left after taxes. Congress is writing a new law that will allow tax-free contributions up to 30%.

In figuring its tax, a corporation may similarly deduct as much as 5% of its net income for contributions to charity. Not many companies reach this maximum—in the best postwar year, less than 1% of corporate profits was funneled into foundations.

More important to the financing of foundations is the provision that all bequests to these funds are exempt from inheritance taxes. And the foundations themselves ordinarily don't have to pay taxes on their income from investments.

• **Loopholes**—This combination of tax advantages sounds like an invitation to set up schemes to elude the tax collector. And it is. Many tax dodges have been tried. Foundations have been found to be operating as private banks for their donors; not infrequently, the "mankind" they have served turned out to be a few indigent relatives.

The Revenue Act of 1950 was phrased to plug some of the bigger loopholes:

- It forbids "unreasonable" accumulation of income. This clause was inspired by the Tobey subcommittee's investigation of six foundations allegedly maintained by Royal Little and Textron, Inc., as a tax-free means of accumulating and supplying venture capital for their business (BW—Mar. 5 '49, p. 82). But Congress didn't precisely define "unreasonable," and the courts haven't done it yet either.

- It removes the exemption from "unrelated" income. This was aimed at highly profitable leaseback deals in which a foundation borrowed money to

buy property from a friend, then leased it back to him. He made a capital gain on the initial sale and, because the landlord didn't have to pay taxes on the rent income, got a lower rent than another owner would charge.

A foundation is still free to buy property and lease it—if it is investing its own funds, not going into the real estate business by borrowing the money to swing the deal.

The same provision also levies taxes on business profits even when the business is owned by a nonprofit group. This takes care of cases like the macaroni factory that New York University owned, tax-free until 1950; the macaroni business didn't pay taxes, and competitors weren't happy about it. Dividends paid by a business to its owning foundation are still tax-free, however.

- The 1950 law also removes tax exemption if a foundation carries on certain "prohibited" transactions with "condemned" persons. Examples of these deals include buying high from a principal donor, selling low to him, lending him money at low interest rates without security, supporting his relatives. However, a relative can still be on a foundation's payroll as an officer or trustee.

- **Still Cloudy**—The Internal Revenue Service suspects that the loopholes aren't all plugged yet. Dubious foundations still have an advantage—the tax collector has a hard time getting information about them. The 1950 law requires certain data to be reported, but not a clean sweep of the books. Bills are before Congress to increase the volume of foundations' reports to government and to the public.

However, revenue men complain they haven't time or manpower to check more than a tiny fraction of the reports already filed by foundations. They have to steer largely by instinct in deciding which ones to investigate.

III. Benefits Aren't All in Taxes

As one foundation officer put it, there are enough legitimate advantages to the foundation system to make the loophole type of operation very much a fringe of the real thing.

For example, individuals and corporations that contribute regularly to charities find the foundation a handy device for leveling out contributions in good and bad years. Where the donor has social prestige at stake in the community, he hates to allow his donation to reflect a drop in his income that year. He would rather give his 20%—or, in the case of a company, the 5%—to a foundation each year and let it disperse his money. The foundation can build up a reserve for the lean years.

A foundation is also a convenient

buffer between givers and fund-raisers. Donors, both individuals and corporations, are often plagued with pleas. A personal or corporate foundation can deal with these impersonally, with less nuisance and acrimony.

Moreover, a foundation offers a way to gather the contributions of many years or many individuals into a fund large enough to carry out a worthwhile project.

- **Family Foundations**—One of the most important values of a foundation appears in the Ford case.

In 1936, the senior Henry Ford and his son Edsel created the Ford Foundation with an endowment of \$25,000. Until 1950, however, the fund served primarily to channel their normal

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routine gifts to favorite local charities. Meanwhile, Edsel had died in 1943 and Henry in 1947. To cover the inheritance taxes when their estates were settled, a great block of Ford Motor Co. stock would have had to be sold outside the family but for the foundation idea.

The solution in this case was this: The Ford wills transferred about 90% of the company's stock—nonvoting shares only—to the Ford Foundation. Voting shares were kept within the family in a recapitalization; relatively little of the Ford estates had to be sold to pay the inheritance taxes, and the Ford Foundation was suddenly one of the great funds.

• **Pros and Cons**—It has been argued that the Ford family would have been dollars ahead by selling the stock and paying a 60% estate tax. This argument fails to take into account the equally important aim of keeping control of the auto company within the family.

In selling the stock, the family would have had to share ownership with outsiders. It is likely, too, that investors would have balked at nonvoting shares. So control, as well as ownership, might have passed outside the family.

IV. The Pharaohs Did It, Too

The foundation idea can be traced back to the Egyptian pharaohs, who set aside wealth for the perpetual care of their tombs and for religious offerings and services. The Chaldean king Maroutach set aside certain lands in perpetuity for a temple to a local god and endowed priests to staff it.

Greece and Rome had institutions that resemble present foundations. Law had not developed to the point where a man could bequeath property to anyone outside his family, and the concept of a fictional person such as a corporation had not yet evolved. As a result, in 347 B. C., when Plato wanted to be sure his famous Athenian academy would survive him, he gave it and some income-producing land to a nephew before he died. The nephew later passed the gift to someone else, and the chain continued till 529 A. D., when the Christian Roman emperor Justinian dissolved the academy on charges of teaching pagan doctrine.

• **Church Holdings**—As the church grew, it became the holder of most property that was devoted to good works. Bequests continually added to its properties. By the time of Henry VIII, in the 1500s, the church held between one-third and one-half of all the property in England. Some historians say Henry's break with the Roman church was motivated at least partly by

For the same reason, Ford didn't give voting rights to the foundation's stock. As long as a friendly board of trustees was running the fund, the family's control would not have been jeopardized, but there would always be danger of misunderstanding among the stockholders and the general public. According to rumors, Ford Motor Co. is now thinking of selling stock to the public to raise money for more expansion. If this happens, Ford Foundation might also have a chance to sell.

• **Smaller Man, Too**—Ford is a classic example of using a foundation to avoid estate taxes and retain control over a business. But many smaller businessmen are also faced with the threat of outside control of their family businesses upon their death. In cases where a company is small and can't expect to sell stock publicly, the prospect may be worse: outright liquidation.

In such situations, the businessman can start a foundation during his lifetime, give it blocks of stock now and then under the 20% contribution allowance, and leave it the rest of the stock in his will. His wife, other relatives, and lawyer can act as trustees, draw salaries, and vote the stock as usual.

a desire to get the royal hands on some of this wealth.

Afterward, laws of mortmain (dead hand) were enacted to limit the holdings of religious orders to the property they needed for solely religious purposes.

• **Private Charities**—In the reign of Elizabeth I, Parliament passed a law defining the purposes of foundations and setting up a commission to watch over them. This law gave private philanthropic groups rights that were still broad:

"The relief of aged, impotent, and poor people; for the maintenance of sick and maimed soldiers and mariners; for schools of learning, free schools, and scholars in universities; for the repair of bridges, ports, havens, causeways, seabanks, and highways; for or toward relief, education and preferment of orphans; for the marriages of poor maids; for houses of correction; to aid young tradesmen and handicraftsmen; for the relief or redemption of prisoners or captives; and for the aid of the poor in paying taxes."

In 1724 when Sir Thomas Guy tried to endow Guy's Hospital in London, the idea wasn't too well received by the public. For one thing, Guy had made his money speculating in the South Sea Bubble, which had cost a lot of people their savings. For another, Guy insisted that the institution carry his name. This

was one of the early instances of public objection to "tainted money" buying good works and self-monuments.

• **Colonizing**—Foundations came to America with the colonists. But they still weren't much like modern ones. In 1791 Ben Franklin set up a pair of funds to aid "young married artificers." And in 1800 the Magdalen Society was founded to help "fallen women." But it didn't work out well at first, because it required beneficiaries to acknowledge that they had been prostitutes. The court later approved a change in its purpose.

Probably the first truly modern foundation in America was the Peabody Education Fund, created in 1867 by George Peabody, an American-born London banker, with a \$2-million endowment. Its purpose was to aid reconstruction of education in the South. In 1914, its mission fulfilled, the fund was transferred as an endowment for George Peabody College for Teachers in Nashville.

V. The Climate

Late in the 19th Century, Carnegie and Rockefeller began pouring out their money—between them, about \$700-million in endowments that resulted in more than \$1-billion in grants.

In that era, the United States had all the elements to encourage the growth of colossal philanthropic foundations. It had the great fortunes; the backlash of the Civil War and the industrial revolution had produced problem areas in the South and the city slums; new means of curing disease were just being glimpsed.

The nation's transformation into a world power, the trustbusting age of Teddy Roosevelt, the need for strengthening the republic before World War I, all helped to argue the social conscience of wealthy men. Tycoons began to see the need for placating the public.

As early as 1889, Andrew Carnegie bylined an article in the North American Review entitled 'The Disgrace of Dying Rich.' And John D. Rockefeller was being prodded by the Rev. Dr. Frederick T. Gates, a Baptist minister, with warnings like this: "Your fortune is rolling up, rolling up like an avalanche. You must distribute it faster than it grows. If you don't, it will crush you, and your children, and your children's children."

• **Time and Place**—The government had thwarted Rockefeller's dream of a worldwide oil trust, and Carnegie was getting ready to sell his steel holdings to the new Morgan empire, U. S. Steel. Both men had already tasted large-scale philanthropy. Both had the egotism to do the charitable thing on a flamboyant scale—Rockefeller even said point-blank

that he believed the power of making money was God-given and that he was chosen by Providence to do good with his capital.

At another time, in another place, neither might have gone on to spend the way he did. And without a full sense of the power of money, they might have dispersed their wealth in a million little charities that might better have been supported by government and local donors, and probably were.

As it was, both men built philanthropic organizations that, in the early days, were able to work near-miracles.

• **Venture Capital**—Everyone knows of Carnegie's gift or endowment of public libraries across the country, and the Carnegie Institute of Technology, which he founded. He was providing venture capital in the true sense. Some projects might misfire; others might pay off.

For example, when Carnegie gave \$10-million to establish the Carnegie Foundation, it led to a broad study of higher education—and to vast outlays by both Carnegie and Rockefeller to build and support colleges and medical schools. Both men forbade their foundations to spend money on small local charities. They pinpointed their aim at the broad fields where the small benefactor was helpless. They aimed at treating causes rather than symptoms.

Rockefeller money went into some of the world's outstanding medical research projects, bringing yellow fever and hookworm under control in the South, promoting medical education and care in China. The principle of risking money on big projects was a carry-over from the business system that produced the wealth. Most foundation officials still cherish the concept of foundations providing the venture capital for the good of society. But most foundations these days are much less venture-some.

VI. Organizing

Legally, a foundation may be organized either as a trust or as a nonprofit corporation. The trend seems to be toward the corporate form. All of the Carnegie and Rockefeller organizations are incorporated, as are other major funds such as Ford, Guggenheim, and Kresge. However, trusts include the Mellon and Kaiser funds; the Cullen Foundation set up in Texas in 1947, and the Fleischmann foundation recently founded in Nevada.

Most foundations are established as discretionary perpetuities. Their directors or trustees have the choice of distributing only the income or dipping into principal as well. They can decide to close out the fund entirely if they think it no longer serves a purpose.

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Foundations

"... a few funds have spent all their money to shed an archaic mission ..."

for example, have distributed about half of the original \$316-million principal, yet this principal has appreciated to a present market value of \$370-million.

• **Extremes**—Other foundations go to opposite extremes in directing their spending. The Carnegie funds are non-discretionary perpetuities, their trustees forbidden ever to spend anything but income from the endowment. In contrast, Julius Rosenwald felt that it was impossible to provide funds for very far into the future—all the money in his foundation was to be spent on Negro problems within 25 years of his death in 1932. Actually, the fund was closed out in 1948.

Similarly, the James Foundation of New York, in general charity work, is required to liquidate its \$46-million by 1966.

A few charters require trustees to accumulate income to some extent. Benjamin Franklin's original endowment in 1791 was \$1,000. When the Franklin Institute was organized in Philadelphia in 1906, one portion of the fund had gained \$438,493 in interest; the rest of the fund, put aside until 1991, already exceeds \$1-million.

The Duke Endowment, which supports education in the Carolinas, requires that 20% of endowment income be held until it totals \$40-million. The future of such funds depends on tax decisions on what is "unreasonable" accumulation. General practice nowadays is to leave trustees or directors a free choice in dispensing money.

• **Granting or Operating**—Most foundations hand out money to other organizations to operate projects. Some, notably the Guggenheim fund, make all their grants directly to individuals through scholarships and fellowships. Guggenheim grants cover the entire spectrum of human knowledge.

Another important type of general-purpose foundation is the operating fund, which hires a staff and conducts its own projects. Among the best-known are the Twentieth Century Fund (economics, natural resources, labor relations), founded in 1919 by Boston merchant Edward A. Filene; the Russell Sage Foundation (applied social sciences), set up in 1907; the Carnegie Institution of Washington, headed by Dr. Vannvor Bush; and the Rockefeller Institute for Medical Research, established in 1901.

• **Special Purposes**—A diminishing number of foundations are formed for very special purposes. The difficulties they have run into in the past have impelled most new foundations to adopt

the broadest possible language in their charters, even where the donors and directors plan to use the money for restricted purposes.

Some special foundations have weathered changes in conditions. The Bryan Mullanphy Emigrant & Travelers Relief Fund was founded in 1851 "to furnish relief to all poor emigrants and travelers coming to St. Louis on their way, bona fide, to settle in the West." It now supports the Travelers Aid Society, an armed forces lounge, and a nursery in the Union Station, St. Louis.

On the other hand, the Samuel G. Davis Fund in Mashpee, Mass., ran into trouble in 1938 in trying to carry out the mandate of only eight years earlier to reward local schoolboys for "good, kind manners." The trustees petitioned a court to let the fund be spent for school construction because "we can't find enough mannerly boys to reward."

• **Courting Trouble**—A tightly drawn charter or trust can be changed only by invoking the ancient doctrine of *cy pres* ("as near as") in a court action that may take a lot of money. A few funds, in fact, have spent all their money in trying to shed an archaic mission and adopt a new one.

That's why foundation people advise phrasing your instructions to trustees in the most general terms, as Section 101 (6) does. You can't ever be sure a railroad won't come through St. Louis or the boys in Mashpee won't turn rowdy.

• **Collective Funds**—Instead of setting up your own foundation, you can add to the endowment of a community trust. This is a collective foundation that pools small funds to carry on local charitable and educational work. They put together enough money to support full-time staffs and a variety of bigger projects than the average donor alone could endow.

F. Emerson Andrews, who heads philanthropy studies at the Russell Sage Foundation, says no fund should be created separately unless it can distribute \$100,000 a year. Below that point, overhead will eat up too much income, and it will be hard to interest capable men to serve as trustees.

The first community trust was the Cleveland Foundation, set up by Leonard Ayres in 1914. Many other localities have followed its example. In most such funds, a donor can still earmark his contribution for a special purpose.

For example, the James Dean Fund in the Permanent Charity Fund of Boston provides \$290 of annual income to be spent in delivering Sunday newspapers to the Boston lightship. If the papers quit publishing on Sunday or the ship goes out of service, the trustees are at liberty to apply the money to

some other good work, without having to go to court for permission.

• **Overhead Preferred**—Of course, if a man's chief concern is to raise a tax-free umbrella over part of his income and to give some jobs to needy retainers, he should by all means set up his own foundation, no matter how small. Then he may even prefer to have the overhead eat up all the income.

VII. Future

Venture capital is the exception rather than the rule in foundations today. The successes of the foundations themselves and the increased activity of government and the fund-raising organizations in health and welfare fields leave less scope for truly venture-some capital.

In the old days, foundations might have pioneered research in cancer, polio, cerebral palsy, heart disease, but today the fund-soliciting organizations are leading that work. Education is still a favorite area for foundations, but not many unexplored corners remain.

Thus, the wealthier foundations must seek outlets more in unpopular or controversial fields not touched by public or governmental giving. They are moving further out on "the frontiers of knowledge," as their officers like to put it. At the same time, public opinion keeps many from going too far into the ticklish areas of controversy. No one can be sure what field will be next on the list of questionable ones—as progressive education is now, for example.

• **Man Shortage**—Chester I. Barnard, retired president of the Rockefeller Foundation, points to education and recreation as fields that offer plenty of work for foundations. The big trouble isn't finding projects, he says, but finding men to carry them out.

In physics, for instance, he says most men are preoccupied with nuclear and radiation studies, whereas there are many unanswered questions in such areas as mechanics and physical chemistry. He suggests a greater effort to find men earlier in their careers, even in secondary schools.

• **Timid Billions**—Abraham Flexner, who directed the medical education program for Rockefeller's expiring General Education Board, calls the new practice of a lot of small grants "the shotgun approach," and says it is wasteful. He would like to see big-scale largesse aimed at the humanities field.

Edwin Embree, another foundations expert, applies the term "timid billions" to most of today's funds. Other critics, too, say foundations are hesitant about backing even small speculative projects. One foundation president conceded that Albert Einstein, if he were an unknown, might have trouble getting



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On the other hand, Rockefeller Foundation officials point to the commitment of General Education Board funds in 1928 to build the giant Mt. Palomar telescope in California—a \$6.5-million project in the end—just because it offered "such a great challenge."

And in 1940 the foundation provided \$1.15-million to build a cyclotron for peacetime research in biology and medicine—it proved to be a link in the atom-bomb chain. These are examples of venture capital.

Rockefeller officials also point to foundation grants for the controversial parapsychology experiments of Dr. J. B. Rhine at Duke University and the research of Dr. Alfred Kinsey at Indiana University.

In projects such as these, they claim, foundations are neither timid nor unimaginative.

• **Rejection Rate**—Foundations reject about 85% of all applications. They don't have the money, they don't think the project is worthwhile, or they don't think it's in their field.

Fund officials concede they play it safe sometimes. If they didn't, they say, they might waste money on incompetent men and completely valueless projects.

Many applications that are turned down at one place are accepted somewhere else. That's one reason for a suggestion that foundations set up a clearinghouse for applications and information. But foundations are wary of anything that smacks of concerted action.

Foundations have too often been charged with trying to "take over" this field or that.

VIII. Public Eye

Public opinion has been stirred up often in the past 50 years by critics of foundations. In 1909, an Atlanta minister named Warren A. Candler published a book titled *Dangerous Donations and Degrading Doles, or A Vast Scheme for Capturing and Controlling the Colleges and Universities of the Country*. Candler strongly urged Southern schools to turn down assistance from foundations.

In 1915, Congress investigated foundations because the Rockefeller fund planned a survey of industrial relations—a sensitive field when linked with the Rockefeller name. The congressional Industrial Relations Committee concluded that foundations were weapons of big business to control education.

It was then that Sen. Robert La Follette, Sr., fearing that the "take-



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In setting the price of their products, for example, they do not have an agency of the Federal government decide for them whether or not it is the price most people will be willing to pay.

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The railroads, almost alone among those American enterprises which

operate under competitive conditions, are unable to function in this way.

Railroad managements, for example, do not have complete authority to establish their own rates. Instead, their charges must first be submitted to the Interstate Commerce Commission—which may substitute its opinion for that of railroad management regarding the effect of the proposed rates on the volume of railroad traffic.

In other words, railroad rate regulation restricts the exercise of managerial judgment—not only in deciding what is good for the public, but also in deciding what is good for the railroads themselves.

The railroads operating in the industrialized and highly populated East are especially hampered by outmoded regulations, Federal and state, which take important decisions out of their hands, or delay them, or make them impossible. They do not seek removal of regulation. They do ask, however, that railroad regulations be modernized, in line with present day competitive conditions.

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- **PROVED PERFORMANCE** — Fifteen years satisfactory use as standard equipment.
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Foundations

over" would reach Wisconsin, persuaded his state to found its own university, to beat the foundations to the draw.

Other state universities grew out of the same investigation.

In 1948-49 came the investigation of the Little-Textron foundations, which led to the loophole plugging of the 1950 tax law.

• **Up to Date**—In 1952, the House named the late Gene Cox of Georgia to hunt Communists in foundations. Major funds had to answer a long questionnaire, after which the committee held 17 days of public hearings. The committee wound up by praising the funds.

One member wasn't satisfied with the scope of the investigation, however. He is Rep. B. Carroll Reece, Tennessee Republican, who now heads the House Special Committee to Investigate Tax Exempt Foundations. His committee recently opened its public hearings by publicizing a list of charges said to have been based on a six-month survey.

The Reece committee announced an intention to prove that "the trustees of typically American fortune-created foundations have permitted them to be used to finance ideas and practices incompatible with the fundamental concepts of our Constitution." The chief target seems to be links between foundations and education and research in the social sciences.

• **Penalties**—Short of removing their tax exemptions, there isn't much Congress could do to foundations. Removing exemptions is a drastic penalty that the government uses only rarely against a foundation that engages in propaganda, lobbying, or subversive activities.

But foundation officials begrudge the time and the loss of public prestige that's involved in probes.

Two years ago, it actually took foundation officials months to dig up answers to the Cox committee's questionnaire.

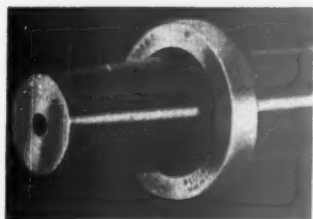
"For about a month that year, you couldn't reach a single foundation executive," says one official. "They were all answering questions."

Publicity—good or bad—is closely watched, too, by foundations. As one executive says, "We don't have the test of profits the way a business does—we compete with each other for public esteem and satisfaction."

• **Between Fires**—Foundations get pretty hard-shelled, though, about some phases of public opinion. They find themselves hopelessly between two fires in supporting projects:

• If they keep close tabs on the progress of projects, they are accused of trammeling academic freedom; if

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Foundations

they don't, they are belabored for disinterest or for shirking responsibility.

• If they keep controversial persons on staff or take sides in any issue, they may be accused of abandoning their objectivity; if they play it safe, they are called spineless.

IX. Future of Business Funds

From now on, chances are good that the wealth of the new foundations will grow to match their mere number. Many of the family funds will doubtless come into small fortunes, probably in stock of the family companies, when their chief benefactors die. Whether they grow as fast as the rest of the economy, and whether they broaden their activity beyond routine charity, are questions still unanswered.

• **Case of Corporations**—There's still a lot of room for growth in businesses' participation, too. Few companies put the allowable 5% into foundations now. Executives say it's hard to convince stockholders that they benefit by a gift the company makes to a school or to a community chest. Many companies say they decide their gifts mainly to please townspeople, an important customer or stockholder, or employees.

Public relations is the big factor in gifts by companies. That's why most companies allot at least half their beneficence budgets to local community drives, where the money shows up for most with townspeople and employees.

• **Bread on the Waters**—Many big corporations have also created important foundations, sometimes for direct benefit of the company, sometimes with a strong touch of altruism:

• **Bulova Watch Co.** supports a school of watchmaking for disabled veterans. The company gives the foundation nearly 5% of net income each year, makes a practice of not hiring the school's graduates itself. This way, it turns out watchmakers filled with goodwill for the company's products.

• **Sears, Roebuck & Co.** has a foundation that gives purebred livestock to farm children's clubs. As a major distributor of farm equipment and a big retailer in rural areas, Sears benefits indirectly.

• **The Ford Motor Co. Fund** (not the Ford Foundation) awards scholarships to children of employees and townspeople, besides backing local charities.

• **Walt Disney Productions** supports studies in visual education.

• **The Ellsworth Statler Foundation** aids research in hotel operations.

• **The Lincoln Electric Co.** supports the James F. Lincoln Arc Welding Foundation.

• **The Bernarr MacFadden Foundation** promotes physical culture.

It's little wonder then that most foundations avoid "venture capital" projects in favor of the standard charities. Some of the very largest funds contribute chiefly to hospital and school endowments, community chests, and the annual disease drives.

Some of the outlays run into big money. Union Carbide & Carbon Corp. is distributing about \$500,000 a year in scholarships for training future executives in economics and business administration. Allied Chemical & Dye Corp. has a similar scholarship plan.

However, about the only corporation fund that has come along to rival the biggest ones is the foundation U.S. Steel Corp. set up last year with an initial gift of \$12-million.

A few projects are too big for any one company. Twenty-three of the country's largest corporations, including Alcoa, American Tobacco, and Pittsburgh Glass, recently pooled their funds to launch an atomic research program at the University of Chicago. Most foundations have dropped atomic research since the price went up—federal outlays have eclipsed private financing of such projects.

• **Government Takes Over**—By natural evolution, much of the work of private foundations has wound up in government hands, anyway.

Rockefeller grants in Mexico, Colombia, and the Middle East are said to have set the pattern for the government's Point Four technical aid programs abroad. The surveys of national income by the Rockefeller-financed National Bureau of Economic Research have been taken over by the Commerce Dept. So has the debt survey originally worked out by the Twentieth Century Fund. And the farm and home service programs of the General Education Board were long ago integrated into the Agriculture Dept.

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Investigating the Foundations

America's philanthropic foundations, the subject of a Special Report to Executives (page 166), have been under continuing scrutiny by special congressional committees. In 1952, an investigation headed by the late Eugene Cox of Georgia concluded that they were generally free of Communist influence, and deserved high praise for their achievements.

Despite this report, a new committee, headed by B. Carroll Reece of Tennessee, has been holding open hearings on charges that the foundations are engaged in a "diabolical conspiracy" to spread "socialism in the U. S.," and are operating against the public interest.

The absurdity of these charges and the unfair tactics being used to support them was neatly exposed by Rep. Wayne L. Hays of Ohio. He adopted the method used by the committee and read some eloquent quotations on social welfare and economic justice. These quotes were labeled by a committee investigator as Communist—they actually were excerpts from encyclicals written by Pope Leo XIII and Pope Pius XI.

Although the current investigation will obviously produce nothing of value, we think a careful scrutiny of the financial power of foundations is in order. The great majority of foundations would not be opposed to this. In fact, they would be inclined to favor an examination that would clear up any doubts about their position.

AS BUSINESS WEEK's study shows, foundations have rapidly increased in number due to two main factors: (1) the excessively steep tax rate levied on individual incomes and corporations, and (2) the tax exemption allowed for charitable and philanthropic contributions. Together, they provide the major incentive for the setting up of foundations by individuals or corporations.

Thus, there are valid grounds for an investigation into these tax-exempt institutions that operate in the public interest. In this regard, they are no different from other institutions representing a large aggregate of wealth, such as insurance companies and building and loan associations, which are under rigid public supervision.

But if foundations are to continue making their special contribution to our civilization, there can be no government direction of their intellectual activities. To argue, as the Reece committee seems to be doing, that it is quite all right to sponsor a biography of George Washington but that it would be all wrong, for example, to sponsor a study of the American Communist Party, would be to extend supervision to include thought control, which is subversive in itself.

The foundations have a proud record in pioneering on the frontiers of human knowledge. By risking venture capital in science and the arts, they have added immeasurably to man's understanding of man. True, some mistakes have been made, for not all the projects sponsored by them have been successful. Venturing

risk capital always entails a gamble, and what is surprising is that so many gambles pay off.

Moreover, the foundations have freely admitted making grants to people who later turned out to be Communists or Communist sympathizers. But these mistakes have been comparatively few, and the effort to magnify them is a naked attempt to exploit current fears and prejudices.

The fact is that the Reece Committee has not inspired confidence in the intelligence of its approach or in the intellectual honesty of its investigators. We cannot but agree with Rep. Hays's observation that it is relishing "the same old tripe."

But we believe that an inquiry into the foundations for the purpose of supervising their financial powers is in the public interest. We hope the present probe gives way to an objective and constructive inquiry, so that the vast majority of foundations may be allowed to add to the past record of great achievements.

The Big Payoff

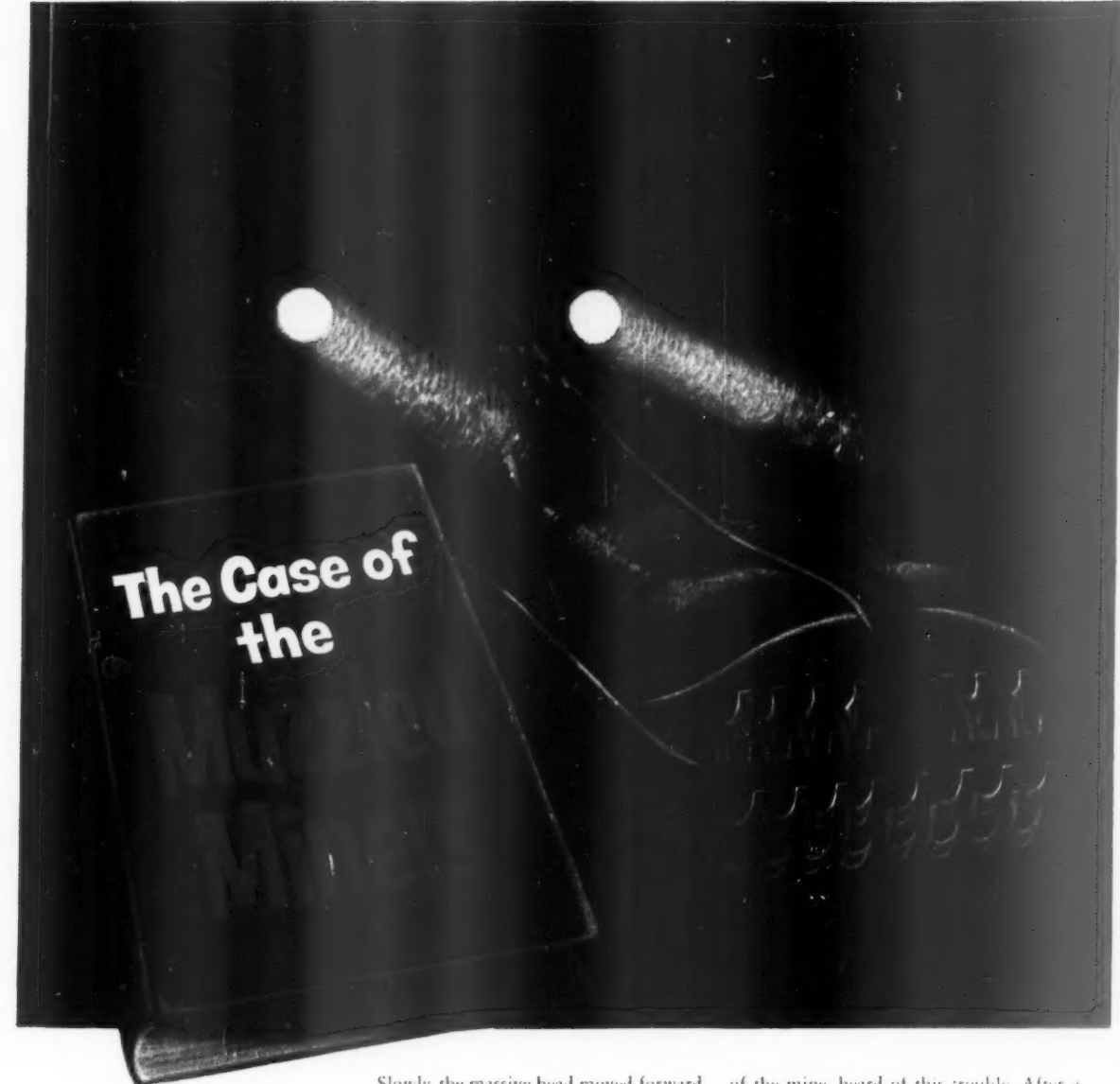
Using family income as a measure of economic progress, Solomon Fabricant, director of research for the National Bureau of Economic Research, has reported that the U. S., which has made a fantastic record to date, has a great potential for future gains.

Average family income, he states, has registered a four-fold increase during the last 80 years and now averages over \$5,000 in real purchasing power. This represents a per capita increase in real income of almost 2% a year, which would "find little precedent or parallel in any other nation or age."

This increase stems partly from the growth of capital and labor put into production but, even more important, from the gains in productive efficiency. According to Fabricant, productive efficiency—or rise in output per man-hour—reflects "the result of a cooperative process that engages the white-collar worker and management, as well as the wage-earner; it involves the sharing of risks by everyone who seeks to earn his daily bread and improve himself economically. . . ."

The rate of increase in productivity has been remarkably persistent, and there is every indication that it can be maintained. Indeed, Fabricant declares that if our past record is a guide, the average family of 80 years hence will enjoy an income of about \$25,000—which is "now attained only by the top 1% or so. . . ."

This sounds almost unbelievable but, given the same cooperative process among all our citizens, it can be obtained. For our economic system, with all its faults, has given Americans an opportunity to share in the fruits of their own labor to an extent that other creeds have propagandized about but never approached.



The Case of the

**How
Correct Lubrication
solved it—saved
\$8,720 per year!**

Slowly, the massive head moved forward. With a loud roar, strong, massive teeth bit into the face, tearing a ton of coal out of the solid seam in less than a minute. But all too soon, the teeth stopped spinning and the huge mechanical miner ground to a halt—"muzzled" again.

The trouble was premature wear of gears driving the teeth. This was happening to several of these machines in a large mine. Repair jobs cost up to \$770 each. Reduced coal output added to these losses. But no one could find a cure.

Socony-Vacuum men, making an analysis

of the mine, heard of this trouble. After a thorough study, they found the cause... water and abrasive dirt collecting in the gear case, plus an improper lubricant. They recommended the correct Gargoyle product, set up proper schedules for draining, flushing and refilling. As a result, coal production tripled between necessary overhauls, repairs dropped drastically—the mine saved \$8,720 a year.

★ ★ ★

Here is another example of how *Correct Lubrication* can improve production—cut costs. Why settle for less?



SOCONY-VACUUM *Correct Lubrication*
FIRST STEP IN CUTTING COSTS

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Can you spare a minute for a miracle?

HORNS blare. Tempers flare. All America's in a rush. A minute's wait at a detour seems an eternity. But detour signs are up only half as long as they were a dozen or so years ago.

Why? Because the construction industry's road building machines are laying down your new highways almost twice as fast as in 1940. By noon, they've finished what used to be a full day's work.

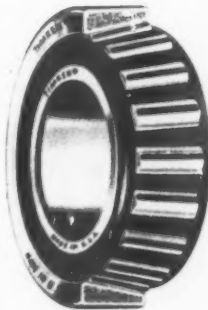
Picture the strain on a scraper

that moves 30-tons of earth in one scoop; a bulldozer that flattens 35-foot trees with one shove. And all that load is concentrated on the bearings their wheels and shafts turn on.

Timken tapered roller bearings keep wheels and shafts turning smoothly and easily with no fear of breakdowns. Their taper is designed to give true rolling motion. Precision manufacture makes them live up to that design. And to in-

sure quality in every bearing, we make our own steel. No other U.S. bearing manufacturer does.

Timken bearings practically eliminate friction, give miles and years of trouble-free service. And in terms of performance, they are the lowest cost bearings you can buy — first choice of industry to keep America on the go. The Timken Roller Bearing Company, Canton 6, O. Cable address: "TIMROSCO".



Only **TIMKEN** bearings roll so true, have such quality thru-&-thru

